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# A Lecture
ON
# GLYCOSURIA AND THE ALBUMINURIA OF ADOLESCENTS.

*Delivered before the Brighton and Sussex Medico-Chirurgical Society on Feb. 5th, 1914,*

BY SIR JAMES F. GOODHART, BART., M.D. ABERD., F.R.C.P. LOND.,
CONSULTING PHYSICIAN TO GUY'S HOSPITAL.

## GLYCOSURIA.

MR. PRESIDENT AND GENTLEMEN,—Some months ago there appeared what was to me a very interesting paper[1] by Dr. D. M. Mackay, of Hull, upon Ocular Diseases occurring in Association with Diabetes Mellitus. In it I read: "There are serious affections of the *retina* which appear in *diabetes* ..... and it is this group of ocular complications that give gravity to the prognosis of diabetes." Again: "Diabetes is very frequently associated with the presence of arterio-sclerosis." I was alert at once because a responsive and critical chord was touched, which is equivalent to saying that I did not altogether agree with the writer's conclusions.

### *Forms and Course of Glycosuria.*

We all know that sugar in the urine in young people means diabetes for the most part, and that it is a very serious matter; but we also know that a saccharine urine in those of advancing years by no means necessarily means diabetes, or, at any rate, that it is far less likely to be of the grave import that youth carries with it. There is, indeed, a sort of agreement abroad to restrict the term diabetes to the grave cases such as are for the most part found in the first half of life, and rather to designate as glycosuria the condition of later years. Nevertheless, I think the affinities of this latter form of malady are not so well recognised as they should be, nor do I think that the natural course of this form of glycosuria is sufficiently apprehended by many.

It hardly needs saying that a true diabetes, commencing as such, with all the classical symptoms, may, under treatment, carry on for many years, and even into the declining decades of existence. I am even strongly inclined to believe that all glycosurias, no matter at what time of life they occur, have something in common—an epileptiform or migrainous paroxysmalism. Therefore, whenever I find sugar in the urine of the comparatively young, even in traces, and further know that it has gone, I am never quite happy about it, for the glycosuria of early diabetes is frequently intermittent, and there is an inveteracy about the glycosuric habit that suggests the appropriateness of the term "epileptiform," for who can tell when it will come or when it has gone? Trousseau applied to angina pectoris, very fitly as I think, the term epileptiform neuralgia, and I borrow this comparison as being applicable to glycosuria, as well as to many another paroxysmal neurosis. But clinically there are two groups of the glycosuric, and you will understand me when I say we will exclude the diabetic and take such a case as the following.

### *Illustrative Cases.*

A middle-aged man of, say, 50 to 60, in whom, on examining his urine, sugar is found. What is the environment, shall I say, of that condition? How has it come? What does it portend? How are you going to deal with it? I know, I say, that a large number of such people are said to be diabetic, and are treated with all the rigour of dietetic principle that such a state is supposed to demand. I want you all to agree with me that such cases in being so handled have got into the wrong pigeon-hole. The clinical history of such cases as this is usually: that the patient has been overworked; worried; has overrun his rest and holidays; a wife or child has been ill; politicians have been restless; nations have been spoiling for war; there have been panics, or nothing doing on the Exchange; affairs are not what they should be; and so on. Thus he has been worried, getting no exercise and ill-digesting his food, and not being quite well; often being giddy, headachy, or liverish; he goes to his doctor, who finds some sugar in his urine. It may be that a little dieting, a tonic, a holiday—and the sugar goes at once, but it will often go only to come again from time to time, and may even in the end have come to stay. But, as I think, the more important feature of these cases is: that in addition to the sugar you will perhaps find a trace of albumin; and then, on examining the pulse, the blood pressure is found to be excessive; in many a case, also, on listening to the heart sounds, there is evidence of labour and stress in their quality. Many of these people may have no albumin for some time, but if they be watched it will ultimately be there. Moreover, there is a tendency in most of them for the sugar to diminish in the course of years, and for the albumin to increase and to become the dominant feature in the case.

In 1901 I became acquainted with a lady, 74 years of age, because of an attack of profuse hæmaturia. She had recently lost her husband and was melancholic in a mild fashion. At that time I think there was no other disease, and we supposed the bleeding to be due to the passage of uric acid crystals. Not long after she developed glycosuria, the urine reaching a specific gravity of 1040. The sugar remained for several years, and before long albumin appeared in the urine also. Some three years before her death cataract developed, and one day she had an attack of giddiness and what was said to be a slight stroke, and her pulse, previously about 80, dropped to 40. She did not suffer in health materially from this condition, but the pulse never recovered its former rate. As time went on all the sugar disappeared from the urine, the albumin gradually increased to a large quantity, and she died from uræmia seven years after her attack of hæmaturia.

### *Retinal Changes.*

So commonly have I seen some similar course of events that it has been an *obiter dictum* with me for many years that these people are not in danger so much from their glycosuria as such—with which alone indeed they may live many years, or to old age—as they are from the slowly maturing chronic Bright's disease, or what is now called arterial sclerosis. Now *these* are the cases that exhibit retinal changes with their glycosuria. With classical diabetes cataract of course occurs, but I am not familiar with retinal changes of any moment, and when I looked at Dr. Mackay's cases my opinion was confirmed. For example, the first case that he

[1] The Practitioner, May, 1913.

gives is that of "a man aged 66. In addition to incipient cataract in each lens there were in both retinæ many white patches, most marked round the macular regions, and in the right eye one or two minute hæmorrhages. After treatment by his own doctor for diabetes for four months he had a large fresh hæmorrhage in one of his eyes. In this case there was no albumin present, and therefore the condition was attributed to the sugar which was recognised for the first time after the retinitis had been detected." I doubt if this inference is warranted. Dr. Mackay's second case is a man of 62, who had been on strict diabetic diet for many years. He had hæmorrhages both near the disc and in other parts of the fundi, and white opacities. In this case the patient had had a considerable trace of albumin in his urine for six months in addition to the sugar. Another case is that of a man, age not stated, who gave a history of a stroke followed by a defect in his sight, apparently due to a cerebral lesion associated with glycosuria, and another in a man of 75 whose glycosuria had been present for years, but his doctor thought his diet had been too rigidly controlled and that the man's arteries had suffered in consequence.

### "*Gouty*" *Glycosuria.*

Gouty has this glycosuria of middle and old age been quite fitly called, and I repeat I do not doubt that many, perhaps all of you, are individually quite familiar with what I am saying, but so far as I remember Dr. Mitchell Bruce it is who, in his Lumleian lectures at the Royal College of Physicians of London, has most recently singled out these cases as a distinct clinical group, and lucidly dwells upon their importance. The syndrome, as it is now the fashion to say, is a very common one, it is distinct, and consequently an important one as regards its treatment. And here is the point. It is not necessary, it is probably not advisable to go for the sugar as sugar. I have known several such who were remarkably fond of sugar, and who, altogether against advice, would not, perhaps could not, restrain their love of lollypops, but who seemed to take no harm from their indulgence. Others there are who seem to derive great benefit from the relaxation of extreme regulations, and there are surely plenty of others whose sugar varies much from day to day, but without one being able to say that the variation depends upon the ingestion of the saccharine material that has preceded it.

### *Imperfect Metabolism.*

I have said that I like the term "gouty" for this variety of glycosuria for the reason that it indicates correctly the tendency of the condition towards the gouty or granular kidney, or rather that state of the circulation with which a granular kidney is associated. What may be the relation between the sugar and the goutiness I must leave to the biochemist to decide. All I am able to say is that clinically there is an individuality that in early adult age may pass phosphates in quantity; to that will succeed a state of uric acid formation, in its early stages often combined with glycosuria; to this albuminuria and high blood pressure are prone to succeed; and the end of such is likely to be that of chronic Bright's disease. These cases then need to be treated with this probable course in view. I like to dwell upon these permutations of imperfect metabolism (as I suppose they are) in the urine, for it seems that on the one hand we make too much of them and on the other too little. We make too much of them when we regard their mere presence as that of a dangerous toxin, and immediately set to work to exorcise it by every possible means in our power; and so lose sight of the indications that such a presence gives of the individuality of the subject; we make too little of them when, exclusively directing our attention to our intakes as being the sources from which they emerge, we lose sight of them as indications of the improper working of the machine itself. It is the machine that is at fault in too many cases, not the fuel that is supplied to it, and there is a need not to damp down the fire but to set about to oil the various parts. Uric acid phosphaturia, oxaluria, glycosuria are, each and all, much more a question of the working of the machine than of the stuff that is put inside us, yet it seems impossible to get this into our heads or those of our patients, and we go on year after year on the same old round of uric acid, uric acid, uric acid. Glycosuria, as more obviously clothed in sombre garb, has especially fixed our attention, but I always wonder that phosphaturia and oxaluria have been so comparatively neglected, for I suspect that they are equally and fundamentally as instructive if they send us to the machinery, to our joints and harness, instead of being satisfied with cutting off our rhubarb and our spinach.

### *Treatment.*

I cannot go into detail upon the treatment of such cases save to express my belief on two interesting questions: 1. That we have gone wrong these many years to my thinking in our slavish acceptation of the dictum of authority that the toxins of the imperfect metabolism of meat foods condition gout; as I will not allow sugar as sugar to be a supreme cause of glycosuria, so neither will I allow proteids or purins to be the prime movers in arterial sclerosis. I would not like to fasten goutiness on to any one food, for I believe the machine is mostly at fault, but I pay more attention myself to the imperfect metabolism of an excess of carbohydrates in leading eventually to such "goutiness" or what not as this. Nor are these cases, on the other hand, to be treated by stock methods of reducing tension. You cannot reduce tension in any persistent fashion, and if you could you would ofttimes kill the patient. Again I say, what is needed is to get at the chemical conditions underlying and determining the excess of pressure, and this is probably some gradually evolved habit of the working of the machine as a whole. No one who has ever given any thought to the matter could possibly think it likely that five grains of this or that could materially change so complex a working as the human machine except it were powerful enough to bring about a *bouleversement*—a collapse, in fact. Croton oil or elaterium may do this temporarily if you wish it. I have heard that it can be managed by electricity, and it is of interest from this point of view to note that when I myself have noted unusually sudden changes and variations of blood pressure they have occurred in cases of cerebral disease, and I am inclined to think that excessive blood pressure in the peripheral vessels is mostly thus spasmodic or hypertonic in origin, and that arterial sclerosis is its late effect. So in attempting to reduce blood pressure there may be many things to consider. Some machines there are that are always hypertonic; their nervous discharge or control can only work that way. They are the equivalents of noisy, uneasily running cars,

and such decay early by excessive wear and tear. The stress may show itself in any organ such as the heredity or the individuality of the organism may dictate. In one it may be the brain, in another the heart, in another the liver or the kidney.

I do not doubt that those who hold that high blood pressure is due to some toxic state of the juices are in part right, but the toxin can be as well produced by the imperfect working of the machine as by a direct product introduced from without, and thus it happens in so many cases that the mere restriction of diet—the elements of diet—has so little effect. If I want to reduce the blood pressure in any given case I think I can do it best in a crude sort of way by ordering an exclusive diet of skim milk, or even of water. But by an actual limitation of food such as this one reverses the wheels of the machine and its currents, the stores of nutrient material redundant in the tissues are thus brought into use, and waste products are reconverted to useful purposes. In common parlance, such methods are dreaded as weakening the system. So in a sense they do. One would not under such a course ask, or expect, of a man a full day's labour. No more would one ask it of one under the effects of a strong purge, which is the more commonly adopted method of treatment for high pressure, and which brings about something of the same conditions—viz., a diminution of supplies, and from the sudden flux, more or less of a state of collapse for the time, which is equivalent, perhaps temporarily more than equivalent, to the sensation of weakness. But by the purging plan the effect is merely temporary, and even at that tends to become more so when frequently repeated, and thus less effective in its action. An occasional week on water would I suspect do many of us good, more even than the biannual venesection that used of old to obtain, and I suspect teaches the moral as regards such cases as led up to the subject that the way to deal with them in the future will be to put them under the skilled observation of the biochemist in an institution, where their intakes and outputs may be critically examined and analysed, and their food carefully adjusted to the capacity of their organs.

### ADOLESCENT ALBUMINURIA.

And now let me turn to adolescent albuminuria—another matter of biochemistry. I know equally little about it, and want to learn of you. I am inclined to speak of it now as the paroxysmal albuminuria of the young. It is not ill-coupled with glycosuria, for each is both paroxysmal and functional. I do not propose to discuss it systematically, for you are all well familiar with it. It is an albuminuria of more or less, sometimes of large quantity, found in boys and youths from any age up to 19 or 20, and may be in young men up to 24 or 25 occasionally. It is not known to be anything like so frequent in girls, but that may be because the urine in them is not so often examined, and the periodical function is also there to interfere with, perhaps even to prevent, its occurrence.

This form of albuminuria occurs, in my experience, preponderatingly in overgrown and weedy youths, and in those, at any rate, who have been growing rapidly, and I think, too, in the food bolter, but there are frequent exceptions. It may be present in many a one of whom it is hard to say there is any ill-health. It sometimes disappears almost as soon as it is noticed, but more characteristically I think it comes and goes over a long period, maybe of months or years. And in such cases it is difficult to say that habits of life make any difference. In one case that I remember, as he was going to the seaside, a boy aged about 10 years was put under the medical care of Mr. W. M. Burgess, of Frinton, and allowed to bathe, and Mr. Burgess made careful observations on the urine. No appreciable difference could be noticed in the albuminuria one way or the other.

The quantity of albumin passed at any one time varies; usually it is not much, but it may amount to a very large precipitate. But the cardinal characteristic of the affection is that at one time of day—usually the first thing in the morning—there is only a trace or none, at another there may be a large quantity. One other feature I will mention, although I shall have to speak of it again, is that invariably in these cases a precipitate of globulin is obtained from the urine by adding a drop or two of strong acetic acid. This condition has been described at one time and another as cyclic, physiological, adolescent, or postural, albuminuria; and, given an undoubted case of the kind, it seems certain that it has no detrimental influence upon life, and there is no reason why it should penalise its subjects in the matter of work that they may be allowed to undertake. Yet it does so on all hands. No one in its presence will be accepted for any of the public services or large private banks, and no life will be accepted at any insurance office either. Albuminuria of any kind is still always looked at askance, as threatening Bright's disease, but in this case it is not so, the medical officers of all the great public schools are quite familiar with it, and know well that it passes off in due time and leaves no trace behind it. There must be any amount of experience to confirm this opinion.

Only a few weeks ago I saw a strong-looking young man aged 17 or so from one of our public schools, whose urine had been found to be albuminous by the doctor of his school, and quite rightly, as I am sure, passed by as unimportant. The boy's father unfortunately obtained other opinions, and then the risk of nephritis came into being, and the continuation of his school life and all his future became seriously in question. The case had, however, all the features of an adolescent albuminuria, and I am quite sure that it was right to let the youth pursue his school course, under the eye of the doctor, without interfering with it in any way.

#### *Causation.*

The condition is a most interesting one—mark I abstain from calling it a disease, and think of it as you will, it is difficult to say much that is positive as to the reason for its occurrence. It has not even found its way into the letter-box of oral sepsis. It has been called postural, for instance, because the albuminuria is often absent from the urine in the early morning, and only comes after the boy has risen from his bed. But I cannot think that the mere tipping a boy from his bed on to his feet can be sufficient to explain the appearance of albumin or justify the term postural. It is too mechanical to be probable. I cannot think that the upright posture has that to add to its many other present-day supposed delinquencies. Believing, as I do, that the clinical facts incontestably prove its harmless nature, they require, it seems to me, some physiological explanation, not a morbid one.

Now there are many relief or safety-valve processes in the body. A mitral murmur, for example,

may be the result of disease or of a mere physiological relaxation in healthy tissues. The processes of thought are often curiously insane twixt sleeping and waking, and for many of us the darkest hour is just before the dawn. Yet not from disease, but from physiological inexactitude, want of sufficiently rapid accommodation, weakness as I have before allowed it to be in relation to food. And surely the explanation lies in this direction. It is in some way a metabolic matter. We have got our ideas of albuminuria too stereotyped into meaning inflammatory or at any rate congestive changes that way inclined, in the kidney. But I can recall to mind, and so can many of you, when there has been a sudden flux of large quantities of albumin which, suddenly coming, has as suddenly gone. Some of the puerperal albuminurias are cases in point. I have known such a flux replaced by one of uric acid, and as one thinks of such things the chemist in his laboratory comes to mind with his instantaneous precipitates and as sudden re-solutions; the passage of gases through his solutions and the rapid conversions and reconversions possible thereby, and methinks still to pin one's thoughts down solely to such processes as congestion and inflammation is to misread the whole trend of modern discovery and to confine ourselves somewhat obstinately to the dark and dawning ages of pathology. Even degeneration may savour too much of a necessarily structural change; but has it never struck you how much there is in renal change sometimes by way of rapidity, sometimes the reverse, that savours more of physiological effort, physiological retard, than of the cellular disturbances of disease?

*Points in Diagnosis.*

In this physiological albuminuria, this borderland perhaps, between natural function and disease, the amount passed is at times excessive, and that again and again in the same patient. Yet on any one day such a quantity would be present, say, at 11 A.M. and gone all but the barest trace at bedtime. I have known more than one such case treated for months as a bad case of renal nephritis, because the amount of albumin had so staggered the observer's judgment that no attempt had been made to gain further information, or do other than accept a too prevalent idea. Yet it is obvious that the mere fact of such a variation in the amount of albumin within a very few hours is sufficient to put the case out of the category or ordinary nephritis.

In every case of albuminuria in the young the first thing to do is to have specimens of urine for examination taken at intervals during the day and for several days consecutively. I always ask for four specimens: before rising, at 11 A.M., 3 P.M., and at bedtime. If in these several specimens any marked variation in the quantity is shown, from much to none, it is pretty certainly a case of the kind I am discussing. I like to see the albumin entirely absent from the urine at some time in the 24 hours, and then I feel sure of the diagnosis, but it by no means always vanishes entirely. Considerable variation within a few hours is the essential point, for this is obviously a feature incompatible, at any rate, with a pronounced organic disease. It is, of course, necessary to take all precautions, and to ascertain the absence of renal elements in the urine, other than casts of hyaline character, which, whatever be their meaning, from centrifugalised urine have seldom anything sinister in them.

There is also that other point, in the matter of diagnosis, that I wish to make, because it has been decidedly helpful to me, and may possibly be of importance from an etiological point of view. The albumin in these cases is, as in Bright's disease, largely a serum albumin—that is, an albumin that is precipitated on adding strong nitric acid to the cold urine and on boiling; but whereas in that disease it is almost invariably only serum albumin—I speak as a child in the matter of chemistry—in this albuminuria of the young there is as invariably nucleo-albumin or globulin as well. That is to say, on taking some of the urine and adding to it a drop of strong acetic acid there will come at the bottom of the tube a definite slight opalescence or milkiness from the precipitation of globulin. This precipitate mostly needs to be waited for a few seconds, and even then looked for, as it is generally but slight, but it is there, and sometimes it is there in abundance. I have used this test now hundreds of times, and whereas the reaction is quite uncommon in renal disease, it is seldom absent in physiological albuminuria. As perhaps weakening the value and significance of the test, but at the same time confirming the statement I have made, if it occur at all in anything approximating to renal inflammation, I think it is in the congestive conditions consequent upon back pressure and stasis, but even so its significance would seem to be that the condition precedent was not one of any advanced structural change. Nor does this admission weaken my hold upon the conviction that if in any young person, male or female, but possibly much more in males than females, you have to do with an albuminuria that shows great diurnal variations in quantity, is attended by no microscopical elements of renal disease, and is associated with a precipitate of globulin, that case is unassociated with any renal change; it will surely pass away as age advances, it is not likely to lead to renal disease, and it ought not to be allowed to penalise the constitution of anyone. I may add that the precipitation of globulin was abundant in the case already mentioned where there was a difference of opinion, and had much influence in fortifying me.

*Comparison with Other Conditions.*

The condition is a most perplexing one to unravel, but for that reason it is all the more interesting. In considering it, it may be as well to remember that there are other states that manifest themselves in very similar manner. The tides of urates, phosphates, oxalates, uric acid, and sugar each have resemblances. I have broached this subject earlier, and, indeed, uric acid and glycosuria are quite remarkable in this way. Uric acid, for example, may come on suddenly as a sort of storm, may remain for many months, and then vanish as suddenly as it came, without giving any obvious reason for thus behaving. But even more closely resembling adolescent albuminuria is the malady known as paroxysmal hæmoglobinuria. Here a man who calls himself well will suddenly feel a slight malaise or chilliness, and the next urine voided by him will be claret coloured or like porter. This urine is found to be loaded with albumin, and supplies a most copious precipitate of blood-coloured detritus, yet it contains no blood corpuscles of any moment; there are no casts or indication of renal disease; and the pigment is all due to the presence of methæmoglobin. What collection of signs could look worse for the integrity of the kidney? Yet they all vanish again within

a few hours, the patient being no worse than he was before the attack; and the many examinations of such cases that have been made conclusively show that the kidney is structurally sound, and these cases never, so far as I know, eventuate in acute or chronic Bright's disease. The condition is indeed so sudden and evanescent that again it would seem to suggest some local chemical precipitation in the tubes of the liver or kidney, a local hæmolytic process, and perhaps, if so, it may furnish a suggestion of leucolysis for the albuminuria of adolescents, induced, say, by the hyperacidity of the night secretion and then brought to light by the tidal wave of the early day. There is no doubt that the morning urine, especially that passed after breakfast—when adolescent albuminuria is very prone to exhibit itself in a pronounced degree—is the sport of unstable function. It is then that a neutral urine with phosphates is prone to appear and to create great discomfort; I think uric acid also. Of sugar I am less certain; perhaps it and oxalates have a more diurnal distribution.

*Circulatory Fluctuations.*

Then the hypothesis of intermittent claudication is one that might conceivably have a good deal to say in explanation of paroxysmal albuminuria, or that, perhaps, and a tidal rhythm in conjunction. If we could see the peripheral circulation in the human taken as a whole as one can watch the blood flow in the frog's web, there would be witnessed recurring halts and retardations in the onward flow between one part and another, and this would be seen to apply not only to some small area, but also equally in larger measure to the entire vascular circuit, now here, now there, as controlled by nerves in common. We have only to think of it and one feels that it must be so, but we also know from instruments of precision that it is so. If means are taken to ascertain the blood pressure in arm, say, or leg, and having attained its average the subject is set to conduct some special train of thought, the manometer will at once show some local fall of pressure. The requirements of mental function demand an increase of supply, and reserves are called up automatically. Any number of examples of this physiological rule will occur to you, negative and positive. One of the earliest indications of failing nerve power is obstinate constipation; there are no supplies to meet the required expenditure. The proverbial shiver after a good dinner tells, I suppose, that much of one's energy of blood and nerve has gone elsewhere than to the skin for purposes of digestion, and that there is not quite enough to go round, and I have often thought that it might be a good gauge of the capacity of preacher or lecturer to set him to compose an address and take the temperature of his feet meanwhile. I doubt if many would talk twaddle if their feet grew cold as they write. Of this, no doubt, was born—and there is plenty to say for it—the old and almost forgotten method of treatment known as derivation, and perhaps counter-irritation also. Thinking thus one can readily see how congestion and stasis might occur, do occur, not as morbid states, but as temporarily recurring physiological conditions, and how even in such the natural osmotic processes might be interfered with *pro* and *con.*, how the normally adaptive changes of the nutrient juices might be arrested or altered; and how thus, especially under the sway of an incoming tide of function, a temporary globulinuria might appear. Moreover, fluxes of such sorts would certainly involve corresponding reflexes in the local areas of supply, and thus spasm as one of numerous results would follow.

One other point I would add: I have said that in most of these cases it is not a matter of ill-health with the subject. The condition is, perhaps, more likely to occur in states of relaxation or want of tone, and this is rather suggested by the fact, already stated, that in a very large proportion of my cases I have made a note that the boy was overgrown or had been rapidly growing within recent times, and I think it probable that in what should be a coördinate expansion and development of the body as a whole—mind and body—there is very often a want of correlation between the parts, and such as be fundamental and voracious in drawing supplies, the nervous and sexual centres, for example, may exact too much and depress the whole. The rhythmic character of the occurrence might be in part satisfied by some such supposition.

*Doubtful Cases.*

But having spoken somewhat dogmatically upon the innocent nature of paroxysmal albuminuria I must equally strongly insist that all such cases need a full examination before coming to a diagnosis. Medicine unfortunately does not admit of many unqualified assertions, perhaps of none, and you will meet now and then with a case where you must remain in doubt and upon which you must refuse to speak positively. For example, a boy, some 10 years old, was brought to me 15 months ago, who had had albuminuria for at least six months. He was of an exceedingly pallid tint and his tissues were flabby and unhealthy, and he gave me the impression of a child who had been bred up in a hothouse, but neither then nor at any previous time had he had any dropsy or, indeed, any evidence of serious illness. He had, of course, as was supposed to be right and proper for a child with renal disease, been shielded from every draught and chill, playmates and games were unknown to him, and he had been fed on large quantities of milk. The urine that was brought to me contained a very large quantity of albumin. I had four specimens of the day's urine sent to me several times, but, although there was some variability in the quantity from time to time, there was not so much as one is accustomed to find in these cases, and the albumin was never in any one specimen anywhere near being altogether absent. But the acetic acid precipitate was present in quantity, and there were no casts or other abnormal findings to be discovered in the urine. In such circumstances I was uncertain. By no means prepared to exclude renal disease, I was yet quite inclined to think it might be physiological, so we altered his diet, cutting off the quantity of milk he had been taking and giving him meat in an ordinary mixed diet. I do not know that I can yet say how the case will turn out, for there has been, and still is, albumin in all the specimens. I have examined two specimens of the boy's urine last week. That on rising is 1028, a perfectly healthy specimen to look at, but it contains a trace of albumin, and there is also present the acetic acid precipitate. An afternoon specimen is 1018, and gives similar reactions; but at any rate I can say this, that the boy is very much better in health, that he goes to school and seems quite well, and I am inclined to think that he will bear out the truth of the late Sir William Broadbent's remark, that to treat these cases as if they were cases of renal disease only makes them worse and converts some into chronic invalids.

From such cases let me turn to another of even less dubious nature. In February, 1911, I saw a boy of 13½, who was 5 feet 2½ inches in height—some 3 inches above the average—and 6 stones 2 pounds, about the average weight for his age. He was a poor specimen, more a girl than a boy, a good companion for adults, good at lessons, poor at games. He had a pallid face, and his urine contained a large quantity of albumin. There was but little to be got, but it was full of lithates as well as of albumin. I sent him home for further examination, and three specimens of urine were obtained; that at 8 A.M. was pale, clear, acid, specific gravity 1020, urea 3·3 per cent. Albumin only a very slight cloud. The deposit was small in amount, of flocculent mucus, with small numbers of epithelial cells, from the urinary passages, and a few leucocytes, but no blood, pus, casts, or crystals. The specimens passed at 11 and in the afternoon were neutral, the albumin being in each rather more than in the early morning one, the deposit giving similar results.

Now, having obtained the information that at one time the urine contained a large quantity of albumin and afterwards a mere trace, I suspect that I considered this a case of adolescent albuminuria, but unfortunately he did not come under medical observation again until this last autumn, when he was found to be generally œdematous, his urine to be solid with albumin, and the boy evidently ill with a very grave form of renal disease. The only history of illness that could be obtained was that of a bad throat early in the year, but from this he was supposed to have quite recovered. The case was in some respects peculiar, for he is a youth whose urine is always scanty; always contains quantities of lithates as well as the albumin; and his blood pressure is always low. I may add that his urine does not give the acetic acid precipitate.

*Remarks on Nephritis.*

One last word as to the bearing of much of what I have said upon the larger question of nephritis in general. These borderland cases do undoubtedly suggest that though certain groups of signs are clinically distinct enough, there is no hard-and-fast line—there could not be—between inexactitude of function and disease that reveals itself by structural change. Therefore, although I am suggesting that we must always take a liberal measure of the range of health, I would not on that account ignore its opposite, the play of disease. There is much in the pathology of the secreting structure of the kidney, whether acute or chronic, that may face either way, and that in doing so cannot but often raise the question, What is the best method of dealing with this or that individual *case*—as of old, I hardly know whether to say disease or patient—and I doubt not that you, as I am, are too often dissatisfied at the results of routine treatment. The prolonged period of rest in bed, the purging, the baths and other sudorifics, the attempt to reduce tension, the milk diet, the exclusion of all meat, purins, alcohol, and so on—each and all objects that may be good in due season—are often sadly deficient in good results, if indeed they be not sometimes productive of harm. And I suspect that each of us can recall many a case where a more generous outlook has been beneficial to the patient. There is no doubt, indeed, that nephritis varies much more between case and case than is generally allowed, the large red kidney, the large white one, and the granular kidney, are all definite enough, but why—to take only the more acute cases—is there a sudden onset in one; an insidious start in another? In one suppression of urine, in another polyuria? In one an always clear urine, in another a heavy uratic deposit, at the same time that there is much albumin? In one much albumin, in another little? In one high pressure, in another low? The same looking kidney more or less in all? It is clear that the gross lesion in the organ will not account for the variation in the particulars, and that you have to deal with the blood in one, the nervous system in another, the metabolism of a third, and so on; and there is perhaps no organ in the body of which it can be more appropriately said that to right it, or to give an opinion upon the chances of so doing, you must study the patient more than his disease.

# The Hunterian Lectures
## ON
# INFANTILISM.

*Delivered before the Royal College of Surgeons of England on Feb. 2nd and 4th, 1914,*

BY HASTINGS GILFORD, F.R.C.S. ENG.

## LECTURE II.[1]

*Delivered on Feb. 4th.*

MR. PRESIDENT, LADIES, AND GENTLEMEN,—In my previous lecture I dwelt upon the subject of symptomatic infantilism and upon its main points of difference from essential infantilism, especially that form which is known as ateleiosis. In so doing it became obvious that the salient distinctive features of ateleiosis are in principle also characteristic of mutations in general. We now pass on to another of these characters of double significance.

### ATELEIOSIS IS PRONE TO BE ASSOCIATED WITH OTHER ANOMALIES OF DEVELOPMENT.

It is recognised by biologists that mutations, or sports, of different kinds are apt to occur together in the same animal or plant. Ateleiosis also shows its character as a mutation in a similar way. Thus in two cases it was associated with multiple osteochondromata or exostoses, in one case with hyperplasia of the gums, in another with a persistent ductus arteriosus, and in others with malformation of the phalanges. In the skeleton of Bobby Fenwick there is a malformation of the mandible. Some have been associated with abnormal longevity, others with premature senility. Of these associated "sports" one of the most interesting is that of absence or of stumpiness of the phalanges, which has been recorded in at least four cases, for it reminds us of a similar state of affairs in brachydactyly, which is known to be hereditary and to occur in company with shortness of stature.

It might be expected of these associated mutations that they would be more likely to occur in organs which usually work together than in organs unrelated. But it is by no means certain that this is the case. Among plants variations crop up apparently irrespective of physiological relations, and generally speaking we can trace no more method in their distribution among animals. Yet there are exceptions to this irregularity, for it has been noticed that the organs which control growth or development seem to be specially selected for

[1] Lecture I. was published in THE LANCET of Feb. 28th, 1914, p. 587.

variation where variations are in fashion. At any rate, in plants when abrupt changes are of common occurrence the organs of sex are peculiarly liable to suffer, and in man we seem to trace a similar association.

*Associated Anomalies in Organs of Sex.*

Thus achondroplasia, epilepsy, imbecility, idiocy, deaf-mutism, obesity, genius, as well as myxœdema, cretinism, and many other abnormalities, are associated either with sexual repulsion, with lessened fecundity, or with downright sterility. This appears to be Nature's method of stamping out departures from the normal, especially if they be regressive or otherwise undesirable. It is not improbable that we can in this way account for asexual ateleiosis, which must be regarded as the culmination of a biological catastrophe.

Ateleiosis makes for sterility in many ways. Thus in the first place, except to the lovers of the odd or the marvellous, such very small people are not attractive, so that they are not so likely to get married as are normal individuals. Schmolch,[2] in referring to ateleiosis appearing in no less than 9 members of one stock, says that the people of the district were disinclined to marry even the normal members lest their children should be dwarfs.

It is probable also that the marriages of sexual ateleiotics with normal individuals are less fertile than is usual with people of ordinary stature, though we have no proof. But when two sexual ateleiotics marry there seems no reason to doubt that there is a decline of fecundity. It is true that out of the few cases recorded in one, that of the Gibson family, there were 9 children, 5 of whom grew up and were of normal size; and in another, that of the Skinners, there were no less than 14 children, all well grown and healthy, and in both of these cases the description of the parents is sufficient to stamp them as ateleiotics. On the other hand, diminished fertility is expressed, still more emphatically, in the frequency with which we read of greatly delayed development of the sex organs. This, as we already have noticed, is met with in all degrees, from mere scantiness of facial hair to complete sexual arrest dating from early fœtal life.

The most probable explanation of these varying relations of sexual to somatic development is that the local anomaly of sex development is either of a satellite nature or is reciprocal, and is the outcome of their normal correlation. Complete or conspicuous arrest of sex development is probably a mutation; but the lesser degrees of sexual defect may be due to the influence of correlation such as was referred to in my first lecture.

*Associated Thyroid Insufficiency.*

Another organ which, under ordinary circumstances, is in intimate relations with general development is the thyroid gland, and we know that it was Brissaud's opinion that the type of infantilism, of which most cases of ateleiosis are examples, is in reality the result of thyroid hypoplasia. And there is much to be said for this view, for often there is a slight puffiness or doughiness of the face, a peculiar yellowish waxiness of the complexion, and occasionally a pink tinge, eminently suggestive of myxœdema. It is not unlikely that these symptoms are actually produced by thyroid inadequacy, for it is sometimes difficult to make sure of the presence of the thyroid gland.

It is certain, too, that there are cases in which it is not easy to decide as to whether one has to deal with simple cretinism or *myxœdème fruste*, or with ateleiosis combined with cretinism. I myself have seen a case of this sort which was very puzzling, and of which I now show a photograph. It seemed quite impossible to say whether there was more ateleiosis or more cretinism in its composition. I was unfortunately unable to solve this problem by giving thyroid artificially.

Some of these cases may be examples of *myxœdème fruste*, but it is highly probable that many are, as they appear to be, examples of ateleiosis with secondary cretinoid symptoms or with actual cretinism. The explanation of such cases is that just as the sex organs are closely bound up with developmental affairs, so also is the thyroid gland, and that as we have all degrees of sexual incompleteness occurring in association with ateleiosis, so are there all degrees of thyroid insufficiency.

*Associated Abnormalities of the Pituitary Gland.*

A third endocrine organ intimately concerned with general development is the pituitary gland. But it will not do to assume that every case of infantilism in which there is a tumour of the hypophysis, or enlargement or smallness of its sella, as revealed by X rays, is necessarily pituitary infantilism. We have no more reason to come to this conclusion than we have to conclude that every case of asexual ateleiosis is the direct result of want of development of the sex organs, or that ateleiosis with symptoms of thyroid inadequacy is no more than primary cretinism. It is highly probable that just as pituitary hypoplasia may account for its own special type of infantilism, so also the pronounced form of infantilism with sexual hypoplasia which is sexual ateleiosis may occasionally be associated with some correlated defect or abnormality of the pituitary gland. If the sex organs and thyroid gland be sometimes involved in the biological misfortune of ateleiosis, we can hardly suppose that the pituitary body, whose functions are so closely bound up with the function of these same organs and with general development, will be exempt from such secondary disturbance. In one of Ettore Levi's[3] cases, before referred to, we seem to have an example of such secondary implication of the pituitary gland.

There were two sisters, one of whom grew normally until her tenth year, the other until her ninth year, when growth stopped or was checked. The former was 20½ years of age and 133 cm. high, and the latter 15½ years and 130 cm. high when described by Levi. In both cases the development resembled that which is usually met with in girls of between 10 and 11 years of age, that is at the height to which they had attained. They were therefore of the Lorain type. Yet apparently they were not examples of symptomatic infantilism, for no cause was found, and the cessation of development seems to have been very abrupt and definite. They were not apparently in a state of debility such as might account for their condition; and, above all, the occurrence of heredity, apart from any common cause, shows that the infantilism was of the nature of a mutation. In both cases there was sexual immaturity. The sella turcica of the

[2] See Eugenics Laboratory Memoirs, Treasury of Human Inheritance, Parts VII. and VIII., Section XV. A, Dwarfism. Virchow's Archiv, Band clxxxvii., S. 105, 1907.

[3] Nouvelle Iconographie de la Salpêtrière, tome xxi., pp. 297, 421, 1908.

younger girl was apparently normal; but the girl aged 20 suffered from frequent headaches, and on X ray examination the sella was found to be greatly enlarged. Here we have two cases without obesity, both clearly of the same type of infantilism, and both showing evidences of being examples of ateleiosis of childhood; yet in one there was a pituitary tumour and in the other there was not. Under the circumstances it seems more likely that the pituitary enlargement was of a secondary or reciprocal character and was associated with the infantilism than that it was primary and the cause of the infantilism.

Again, let us take the case of the Edinburgh skeleton (Bobby Fenwick), which I have described[4] as an example of ateleiosis of the second class, and in which the sella turcica was found to be about 50 per cent. bigger than the sella of the normal skull with which it was compared.[5] The skeleton was of a height equivalent to that of a normal child of 8½ years. Yet Bobby Fenwick was about 50 years old when he died, and many of his epiphyses were still ununited, while his dentition almost corresponded with his height. It is evident that his was a case of infantilism of extreme degree, similar to that which we meet with in cases of ateleiosis of the second class. It does not seem likely that he had lived all those years with a tumour of the pituitary body. It is more probable that his was genuine ateleiosis and that the abnormal condition of the hypophysis was a correlated or secondary abnormality. It must be regarded as in some way confirming this view that the mandible was distinguished by a peculiar malformation.

This case may be compared with that of Mikolajek, so carefully described by Arnold Paltauf. His height (112·5 cm.), his infantile thorax, childish pelvis, and the state of his epiphyseal ossification all point to his being an example of ateleiosis of the second class. On examination of the excellent photograph which Paltauf gives of the base of the skull we see that there was no excavation nor other deformity of the sella such as would have been produced by a tumour. Paltauf describes it as expanded in all directions, and if we may judge from the photograph its capacity was increased by not so much as 50 per cent. as compared with a normal skull. The only interpretation that can be put on this state of the sella is that during life the pituitary body was in a state of generalised overgrowth. Yet it must not be forgotten that the kind of enlargement which causes defective action of the gland and goes with Fröhlich's infantilism is not a uniform hypertrophy, but is as a rule a definite tumour or at any rate an irregularity which cripples by partially destroying the parenchyma of the gland.

*Relations of Pituitary Condition to Ateleiosis.*

That ateleiosis in general is the result of any failure or defect of the pituitary hormone can hardly be entertained in the present state of our knowledge. The condition met with in sexual ateleiosis, with its absence of obesity, its sexual completeness, and its freedom from local indications of pituitary tumour, is emphatically against such a view. So far, only one skeleton of this form of ateleiosis has apparently been described, and that is the Cambridge skeleton referred to in my previous lecture, and in this case there was no abnormality of the sella.

But it may very well be contended that whereas sexual ateleiosis occurs quite independently of pituitary hypoplasia the asexual form may still be of pituitary origin. This view is to some extent supported by the facts of the enlargement of the sella in Bobby Fenwick and in Paltauf's case. This also seems to be the interpretation of Rennie's[6] case and of cases described by Cushing. But there are very strong objections to this view, one being that the first two cases referred to admit of the explanation already given. Another is that neither Rennie's nor Cushing's cases can be described as ateleiotic. They are examples of infantilism, it is true, but do not come under the definition of that particular form of infantilism which is ateleiosis. A third objection is that we cannot, as I have already shown, draw any line of demarkation between sexual and asexual ateleiosis. The two seem to form one biological group.

In two cases of asexual ateleiosis recorded by Dr. Parkes Weber[7] the sella seemed at first rather small, but Dr. Parkes Weber informs me that Dr. J. Metcalfe estimates the sella in the male to measure 1 cm. and in the female 1·8 cm., and that in the latter the dimensions in other directions show that the sella is "by no means a large one." The skiagrams, which were not taken by Dr. Metcalfe, were unsatisfactory, and the measurements are therefore only approximate.

In one of my own cases[8] the skiagram, which I now show and in which the sella is very sharp and distinct, that fossa is neither smaller nor bigger than normal, and is not deformed. It measures just 1 cm. in diameter, which comes between the 0·75 cm. and the 1·5 cm. regarded as within normal limits by Levi and Cushing respectively. In the skeleton of fœtal ateleiosis in this museum there is also no abnormality of the sella.

We must conclude that enlargement of the pituitary body, when it occurs, is associated with the asexual form of ateleiosis rather than with the sexual, and is more likely to be of the nature of a functional overgrowth than of a degeneration or tumour. In all probability it is not primary, but is secondary to the sexual defect. According to Biedl,[9] Fichera has shown that in castrated animals the pituitary body may be enlarged even up to twice its normal weight; and Tandler and Gross, as the result of their examination of skulls and of living animals by skiagrams, have pointed out that the sella is correspondingly enlarged. This view of the relations of pituitary overgrowth to ateleiosis enables us to understand such cases as that of Levi and those reported by Dr. Jameson Evans,[10] in which Dr. Evans, after an apt contrast between ateleiosis and acromegaly, gives details of a case of ateleiosis in a male aged 51. The disorder began between 12 and 14, but it was not until the age of 43 that definite symptoms of pituitary tumour set in. Up to that time the symptoms were characteristic of ateleiosis of the third class. By far the most probable interpretation is that the ateleiosis was primary and led secondarily to pituitary overgrowth. This overgrowth then passed on to degeneration and adenoma formation, much as the thyroid overgrowth of Graves's disease sometimes ends in the similar degeneration and adenomatosis of goitre. Dr. Jameson Evans gives a short account of another

[4] Disorders of Post-natal Growth and Development, p. 607.
[5] Brit. Med. Jour., 1913, vol. ii., p. 843.
[6] Ibid., 1912, vol. i., p. 1355.
[7] Proceedings of Royal Society of Medicine, vol. vi., No. 7, 1913, Clinical Section, p. 201.
[8] Disorders of Post-natal Growth and Development, p. 303.
[9] The Internal Secretory Organs, p. 340.
[10] Brit. Med. Jour., 1911, vol. ii., p. 1461.

case of ateleiosis in a boy aged 15, beginning at the age of 6. With it is a reduced copy of a skiagram of the base of the skull showing the sella apparently diminished in size. In reality the sella is not too small, and the posterior clinoid processes are not abnormal.

It seems certain that for the present we must regard cretinism, the infantilism of Fröhlich, and ateleiosis, sexual and asexual, as three distinct morbid states, each having its characteristic symptoms. At the same time we recognise that as they are intimately related in their biological foundations, so also do they occasionally blend pathologically. Though, generally speaking, each has a strong personality, causing it to stand out conspicuously from the other two, yet there are cases in which their characters are so fused together that it is almost impossible to state which particular disorder predominates.

In at least two of the recorded examples of hereditary ateleiosis it is stated that the father of the first case was of short stature. In all probability he, too, was an example of ateleiosis either of the third class or of adolescence; for according to the law of anticipation we should expect the ateleiosis to appear earlier, and therefore in a more pronounced form, in the children than in the parents. It is also important to recognise that, as in achondroplasia, cretinism, and indeed all other diseases, ateleiosis occurs in lesser degrees or in atypical forms which may be difficult to recognise.

## THE NATURE OF INFANTILISM.

In order to determine the nature of general infantilism we must inquire as to the nature of infantilism of organs, and of arrest of development wherever it occurs; for it must be evident that general infantilism does not stand alone, but forms one of a whole series of anomalies all characterised by a similar delay or arrest in the process of body building. Some may be local, others more general; some begin early in fœtal life, others not until late on in the course of post-natal development; some may affect organs essential to existence and be incompatible with life, others an organ or part of very little consequence. But although there is so much diversity of manifestation, the principle which underlies their origin is one. Any explanation which will account for a local defect of pre-natal development, such as a spina bifida, a fissure in the neck, or a cleft palate, will also account for post-natal defects of development, such as ateleiosis.

By far the most rational explanation of these errors by defect is that they are reversionary. In other words, they indicate that in the course of that hasty and imperfect recapitulation of its evolution which constitutes human development something has happened which has arrested the process, so that in this particular the body, otherwise modern, is reminiscent of some former period of its ancestry. We therefore incline to the conclusion that general infantilism is a reversion, and that in the most pronounced form of sexual ateleiosis it reproduces after a fashion the image of prehistoric man in the direct line of our ancestry.

## EVIDENCES THAT INFANTILISM IS A REVERSION.

It therefore behoves us to inquire as to the characters of early types of mankind. Now there is a considerable amount of evidence as to the appearance and habits of our early human ancestors, and though much of this may by itself be regarded as of rather a flimsy kind, it is considerably stiffened by the way in which it can be welded together. This evidence is to be obtained from a study (1) of the development of anthropoid apes; (2) of fossilised human bones; (3) of prehistoric drawings of the human figure; (4) of tradition; (5) of people in a state of racial infantilism; and (6) of modern children.

### 1. *Development of Anthropoid Apes.*

One need hardly go into the question of our descent from lower animals, even if I were competent to do so. All that I wish to bring to your attention are certain cardinal features about which we must all agree. There still exists a common impression that we may have been derived by direct descent from animals which, roughly speaking, correspond with present-day adult anthropoid apes. It is scarcely necessary to say that so far from the evidence being in favour of this view it is very much against it. But although man can hardly have descended from any creature like the full-grown orang, chimpanzee, or gorilla, there is abundant and convincing evidence that we all come directly and closely together from the same stock. If this be true it, of course, means that there will be many points of resemblance between the young of these various species of animals, for according to the theory of recapitulation there must be a stage in their development when all these animals will be very similar. That such is actually the case has, of course, been demonstrated by Haeckel and by many others.

I have no time now to go into the many resemblances, but what I wish particularly to insist upon is that the young anthropoid of whatever species and the young human being at about the seventh month of fœtal life (which Haeckel believes about represents the period of the parting of the ways) show a striking similarity in bodily conformation. In all cases the trunk is long, the lower extremities short, the head big, the forehead domed and without supra-orbital ridges, the face small and hardly, if at all, prognathous. These common features of man and ape are still plainly to be witnessed in the ape at birth, but with each succeeding year of life the difference widens, until in the mature gorilla, orang, or chimpanzee we come to a being as unlike the young ape and the young human being as if they belong to different species of animals.

All this tends to show that our direct line of ascent was not through some beetle-browed, muscular, and coarsely built anthropoid, seeing that the simian characters did not appear until after the higher apes had diverged from the original human type. These simian characters when they appear in the course of human or anthropoid development or evolution are derived from a remoter period than that of the branching off of the anthropoid stocks from the man stock.

### 2. *Fossilised Human Bones.*

In regard to the fossil remains of palæolithic man, in most cases the type has been of the big simian kind, with prominent brow ridges, resembling the adult rather than the fœtal anthropoid. This evidence therefore is in favour of the view that our palæolithic ancestors had diverged from the more human type of the seventh month of fœtal life, and had afterwards acquired certain simian characters. If so these must have since disappeared. But there is another view, and that is that these fossilised bones were not of our prehistoric forefathers, but

of men of more anthropoid type, who, like the chimpanzee, orang, and gorilla, had branched off from the leading stock which constituted primitive man. At any rate, among the bones of animals and the flint implements of later palæolithic origin have been found the skeletons or skulls of a much more elegantly formed, shorter people, and there is plenty of evidence that men of this latter type at one time inhabited vast tracts of Europe, Asia, and Africa, where they are now extinct.

Two skeletons of dwarfs of the Aurignacian age found in a cave at Mentone may be given as examples. These skulls, one of an old woman and the other of a boy of about 17 (Fig. 2), are of negroid character and have been shown by Pruner-Bey to be remarkably like those of modern Bushmen. The height of the woman's skeleton is about 1580 mm. and of the boy's 1540 mm., the present-day Bushman having a mean of 1530 mm.[11] It will be noticed in the pictures of the skull of the woman, which is compared by Professor Sollas with that of an adult Bushman, that the Aurignacian skull is still more infantile in its characters than is

FIG. 2.

Palæolithic skull of Aurignacian youth, aged about 17, showing infantile and negroid characters. Infantile or childish features are shown in the relative proportions of the skull and face, the shape of the skull, the prominence of the forehead, the smallness of the nose, the size of the eye sockets, and in the character of its margins and of the brows. (Outline of Figure from "Les Grottes de Grimaldi," par R. Verneau, *L'Anthropologie*, tome xvii., p. 291.)

that of the Bushman, even if we take into consideration that it is the skull of a woman. The face is shorter, the body of the mandible being especially shallow, the muscular prominences less pronounced, the forehead more bulging, the nasal bone shorter, the cranium more rounded and almost devoid of character.

There are some interesting fossil bones of one of these dwarf races in this museum. They were found in 1910 by Colonel Willoughby Verner in a cave near Gibraltar and were alluded to by Professor Keith in his Hunterian lecture of 1911.[12] The latter regarded the thigh bone as "quite unlike any human thigh bone now known" and as of considerable antiquity. Dr. Duckworth[13] is of the opinion that the femur resembles those of the Aurignacian (palæolithic) dwarfs and of modern Bushmen and Andaman islanders.

### 3. *Prehistoric Drawings of the Human Figure.*

Fortunately, some of these dwarf peoples were given to drawing and painting, and a few of their incised drawings are still extant; and it is significant that these drawings or carvings rarely represent men of the coarse, long-limbed, beetle-browed, muscular type, but almost invariably of the short-limbed, big-headed type. Moreover, though some of them are fat or in a state of pregnancy, they are usually more or less elegantly formed and either with rounded outlines or else of slender build. Yet they are evidently not people of any civilisation, for the figures are always naked, and three of them are depicted as hairy. Some are evidently drawn by practised draughtsmen. Indeed, so much ability is shown that we attach all the more importance to their proportions, although in two cases the limbs are so exceedingly short that they seem functionally inadequate. Figs. 3, 4, and 5 represent adult human figures of palæolithic origin showing infantile characters.

FIG. 3.

FIG. 4.

FIG. 5.

FIG. 3.—From an incised drawing in the Grotte de Combarelles. (From "Sur les Caractères des Figures Humaines dans l'Art Paléolithique," par C. H. Luquet, *L'Anthropologie*, tome xxi., p. 421, 1910.)

FIG. 4.—Outline drawing of one of the rock sculptures found in the Department of the Dordogne by Dr. Lalanne. It is supposed to be at least 15,000 to 20,000 years old, of the Aurignacian age, and the earliest known sculpture of the human figure. (From "Bas-réliefs à Figuration Humaine," par Gaston Lalanne, *L'Anthropologie*, tome xxiii., p. 129, 1912.)

FIG. 5.—The "Femme au Renne" from Laugerie Basse. Figure of pregnant woman of the Magdalenian age, cut on ivory, and showing hair on the abdomen and lower limbs. (From "Le Musée Préhistorique," par G. et A. de Mortillet.)

These figures serve as a connecting link between remote prehistoric races and races still extant. Comparisons have been made between the Magdalenian men who drew the reindeer, and some human figures, and the present-day Eskimo, a race of short peoples of backward evolutionary status. In other cases cave-drawn figures of animals and men of highly conventional type have been regarded as akin to those drawn by the Bushmen of South Africa. This idea has been elaborated in particular by Professor Sollas in his "Ancient Hunters and their Modern Representatives," wherein he points out many striking similarities between the men and drawings of the Aurignacian age and those of present-day Bushmen.

### 4. *Tradition.*

Pictures are not the only traces which have been left behind by these prehistoric short people. Something may also be gathered from tradition in the form of folk stories or of fairy tales. These, collected from many different countries, are so extraordinarily similar that it is impossible to pass them over as of no value, their striking uniformity being by itself valuable evidence that they are founded upon facts. These refer sometimes to giants, but as a rule to dwarfs, who go by the names of pixies, kobolds, fairies, brownies, sprites, nisses, trolls, elves, and little people. These dwarfs were characterised by a mixture of quaint shrewdness and simplicity, whereas the giants were not only big, but dull-witted, strong, brutal, of coarse tastes, often cannibals, and at enmity with the little people.

The sort of knowledge which we get from folk stories and fairy tales all tends to bear out the evidence showing that in some remote prehistoric times there were few parts of the earth's surface which were not inhabited by dwarf races. Moreover, the manners, intelligence, and even the appearance of these little people have been handed

[11] Ancient Hunters and their Modern Representatives, Professor W. J. Sollas, 1911, p. 267.
[12] THE LANCET, 1911, vol. i., p. 722.
[13] Prehistoric Man, W. L. H. Duckworth, p. 49.

down by this same kind of tradition. Thus, according to Mr. Croker,[14] an "elf" appears like a beautiful child a few years old, delicate and well-shaped; the Scotch and Welsh legends describe him decidedly in this manner. Yet they were not all of one kind, for "in the tradition of these fairies they are described at the same time as beautiful and as old and ugly. The dwarf too has the infant form, but is aged and disagreeable in appearance." Mr. Craigie[15] says that dwarfs among the Scandinavians "are short and thick, beardless, but not at all ugly. They are as big as children or babies. Nisses are no larger than little children." They "are only 3 or 4 feet high, with big clumsy heads, broad faces, big round noses, and red hair."

In regard to the manners and customs of these dwarf people we are told that they were fond of dancing, of music, of processions. They were active, roguish, good-natured, capricious; a combination of good and evil, of duplicity and sincerity; sometimes generous and obliging, at others in the highest degree vindictive or malicious. Though fond of teasing, of making game of people, they would not suffer themselves to be laughed at nor permit any retaliation.

In short, in nearly all countries we find these little people represented as not only with the size and proportions of children, but also as showing childish traits and the disposition, tastes, the mixed simplicity and astuteness so characteristic of childhood. In a Chinese picture reproduced by Moseley,[16] some of them with the proportions of infants or young children are represented walking arm-in-arm. The work from which this picture is derived is supposed to date back to 2205 B.C.

Mr. E. S. Hartland in his "Science of Fairy Tales" (p. 345) says that "the myths of nations all over the world follow one general law and display common characteristics," and that "all these folk stories are built upon the same general plan; the same backbone of thought runs through them; and between them all there is no greater divergence than that which in the physical realm separates mammal from bird or bird from reptile. It is inevitable to conclude that even the most recently discovered folk tale of them has come to us from a distant period when our forefathers were in the same rude state as Dyaks and South Sea Islanders."

Another great ethnical authority, Mr. E. B. Tylor,[17] states, that these tales of dwarfs "are connected with traditions of real indigenous or hostile tribes is settled beyond question by the evidence brought forward by Grimm, Nilsson, and Hannsch."

### 5. *People in a State of Racial Infantilism.*

We have already referred to the dwarf races which still exist in different parts of Asia and Africa. Some apparently are of negroid origin, others show Mongolian affinities. There is good reason to believe that they represent peoples in a state of racial stagnation or infantilism. The causes calculated to produce racial infantilism would be of a regressive or depressing character. In the case of these racial or phyletic dwarfs there exists a depressing environment quite sufficient to account for the extreme sluggishness of their evolution. This is constituted by the great gloomy arboreal forest in the shades of which so many of these dwarfs live. And similarly with the Bushmen and other dwarf races which are subjected to hard living in deserts or mountains.

Kollmann's view is that these ethnic dwarf peoples are the direct and but little altered descendants of the palæolithic dwarfs who at one time were spread over the greater part of the world and whose drawings and bones are found here and there in Europe. They represent the dwarfs of the caves and the woods, who at one time danced in the moonlight in most of the countries of Europe, Africa, and Asia and who were the origin of the legendary tales of little people which exist in all nations.

Sir William Flower[18] termed these ethnic dwarfs "living fossils" and remarked on their round heads, which are contrasted with the longer heads of the living races around them, and also on the "almost infantile appearance" of some dwarf crania.

There is much diversity in the different accounts of these dwarfs. They are often described as like monkeys, and are even termed "monkey people" by their neighbours. Some resemble children in their proportions. They then have large heads, rounded foreheads, high shoulders, short lower limbs, protuberant abdomens, small hands and feet, and short flat infantile faces. Their noses are sunken at the root. Like children, they show remarkable uniformity in their physiognomies. Facial hair is scanty, yet among some tribes the whole body is apt to be clothed with a sparse or more or less thick crop of reddish hair. De Quatrefages says that two full-grown Akkas brought to Europe in 1873 were by some of those who examined them regarded as children. De Quatrefages[19] says of their dispositions and habits that "the general character of the two Akkas has remained sensitive, impulsive, and recalls that of our children. They love to play; their movements are quick; when they walk they only go at quick step." It is, of course, among women in especial that the infantile characters predominate, and Ratzel[20] figures an African woman of mature development, who, apart from her colour, the character of her hair, and her sexual features, would do for the picture of a European child. It has been noticed that the pygmy pelvis tends to approach the infantile form. In other instances the proportions are those of ordinary adults. This was the case, for example, with two Akka skeletons, now in the Natural History Museum, given by Emin Pasha and described by Sir William Flower. These and some other Central African dwarfs, though childish in some respects, are in the main of adult proportions.

Flower said of these dwarfs that "they are obviously negroes of a special type and bear much the same relation to the larger long-headed African negroes that the negritos bear to their long-headed Melanesian neighbours." And this view is also held by Professor Keith, who believes that the dwarf races are in reality offshoots from the neighbouring races of bigger people.

There are, therefore, two ways of looking at these ethnic dwarfs. In the one they are regarded as never having arrived at a higher point of evolution. In the other it is supposed that they are derived locally from neighbouring races of ordinary stature. But according to the modern views of genetics such a change would not take place by a series of smaller

[14] Fairy Legends and Traditions of the South of Ireland, Part III., P. C. Croker.
[15] Scandinavian Folk-lore, selected and translated by W. A. Craigie.
[16] Notes by a Naturalist of a Voyage in the Beagle, p. 423.
[17] Primitive Culture, 1871, vol. i., p. 348.
[18] Essays on Museum, Chapter xix., the Pygmy Races of Man.
[19] The Pygmies, transl. Starr, p. 182.
[20] The History of Mankind, transl. Butler, Div. K, Book iii., p. 302.

degrees of variation, but would be much more likely to start suddenly by mutation. And the kind of mutation calculated to reduce people from a bigger and more mature type to a smaller and less developed would be a regressive variation. It would, in short, be of the nature of the mutation which we suppose is ateleiosis.

In Europe, where racial standards are constantly improving, such a regressive sport as ateleiosis meets with a cold reception, for it is in discord with the circumstances of our civilisation. It therefore soon becomes extinct. But a similar regression to a dwarf type occurring among nations themselves regressive and surrounded by conditions unfavourable to progress would be much more likely to be fertile and to survive. And the point I wish to accentuate is that such regressive mutations necessarily tend to reproduce characters distinctive of an earlier evolutionary type. A regressive variation is a reversive variation.

If we sum up the evidence afforded by these ethnic dwarfs of Asia and Africa we observe that within restricted limits they exhibit great diversity of form. Some show many childish or infantile features, others are of more adult type. But on the whole their height, proportions, history, conduct, tastes are in favour of the view that they are indeed the present-day representatives of man in the infantile stage of his evolution, but modified by circumstances. It is hardly conceivable that any animal should remain for untold ages exactly stationary, marking time in his evolution. It is much more likely that changes have slowly gone on. And these changes would tend to bring the pygmies into line with neighbouring races, some of them being in the direction of a more adult type of figure, others in that of negroid or other characters suitable to their habitat.

Much interesting information about "The Pygmy and Negro Races of Africa" was given here in a Hunterian Lecture by Dr. F. C. Shrubsall[21] eight years ago.

Very little seems to be known of the children of these negrito and negrillo races. But there is an important specimen in this museum which bears upon the subject. It is that of a newly born child from one of the Central African dwarfs. This child weighed 5 lb. 12 oz. It was therefore about 1 lb. under the weight of a normal European baby. Yet it was apparently an unusually big negrillo baby if we may judge from the fact that it owed its death to the difficulties which attended its birth.

### 6. *Modern Children.*

We now come to the evidence furnished by contemporary undeveloped man. It is now regarded as an established truth that the young child playing with his Noah's ark, with bows and arrows, delighting in the rhythm of music and of dancing, fond of all sorts of living animals, wild and tame, eager for country walks to gather fruit and birds' eggs from the hedges, enjoying the glow and crackle of bonfires and in terror of the dark, derives his tastes from his remote ancestors who lived at a time of evolution which corresponded with the childhood period of individual development. His innate conservatism, his vivid imagination, his especial liking for stories of wild life and adventure, of uninhabited islands, of fairy tales, are full of significance.

All this is, of course, well known to everyone here and need not be dwelt upon, but what is important to my subject is that the evidence of our descent from a savage type of man is not exclusively functional. All these savage traits must have a physical basis. This is as certain as that a certain kind of structure is inseparably connected with the function of urinary secretion, another kind with the production of bile. It is but natural to suppose that in a general way the type of being which reproduces the ways of our palæolithic ancestors must also to a similar degree reproduce his structure. This will, of course, have changed from the orginal type during the ages, but there is no reason to suppose that this modification will be more of form than of function.

We must regard the child as the outcome of two sets of circumstances. The one set, prehistoric, tends to reproduce the characters of primitive, undeveloped man; the other, contemporary, is partly pre-natal and partly post-natal. He is the original wild man suitably moulded for existence in the uterus and as a baby and child. He is the creature of heredity adapted to a modern environment.

I am quite aware that this view of the phylogeny of man goes no further than to the fringe of the matter, and that its statement is one-sided. But I am emboldened to adopt it because I know that it has already been advocated by Kollmann and by many other anthropologists. Moreover, I can hardly do otherwise, for it is the logical outcome of the biological method of dealing with my subject. I feel myself carried inevitably along to the conclusion to which I have arrived, and can see no other way of accounting for infantilism. This biological conception of ateleiosis may possibly throw light on some of its characters difficult to explain. It may account for the way in which ateleiosis not only perpetuates infantile features but exaggerates them. In other words, the growth which creeps on so tardily after ateleiosis has set in, instead of tending to obliterate the infantilism accentuates it. And this fact must needs be regarded as much in favour of the reversion theory. Thus, the exceedingly short limbs of some ateleiotics forcibly remind us of the limbs of the carved drawings of Aurignacian origin. The noses also of some sexual ateleiotics are so excessively sunken at the bridge as to look pinched in or puckered, and this same feature may be noticed in some of the Mid-African dwarfs.

Another character noticed by Rischbieth as hitherto unexplainable is the peculiar yellowish tinge so often seen in ateleiotics. Is it conceivable that this represents a reversion to the skin pigmentation of primitive man? Schweinfurth compared the colour of the Akkas to that of coffee slightly roasted; Bushmen are of a light yellow tinge.

Yet another fact of possible biological significance, also referred to in the "Treasury of Human Inheritance" (p. 508), is the occasional occurrence of ateleiosis in people of a similar name possibly coming from the same stock but not known to be related. The particular instance given in the "Treasury" is that of the two Lehnens, one of whom, Jacob, was a celebrated painter born at Hinterweiler in the province of Treves in 1802[22] and who died at Coblenz in 1847 at the age of 45. The other, Peter Lehnen, was described by Schaaffhausen. He died at Coblenz at the age of 61 in 1868. No connexion can be traced between these two cases, both undoubtedly ateleiotic. Nothing is said about the occurrence of dwarfism in others of

THE LANCET, 1906, vol. i., pp. 983, 1060, 1133.

[22] The particulars are from "Les Nains et les Géants," by Edouard Garnier, p. 238.

Jacob's family, but Peter was one of a family of nine, four of whom were dwarfs, he being the eldest. Though it is not possible to trace any direct connexion, it is in the highest degree improbable that there is not some bond of relationship between them, though it may be remote.

We also notice that the Magri family came from the province of Ferrara in Italy and the Magro family from Sicily, both being examples of hereditary ateleiosis. Possibly these two families were offshoots from one stem. For it is characteristic of mutations that they should be latent, breaking out in perhaps widely separated branches from the same stock.

### CONCLUSIONS AS TO GENERAL INFANTILISM.

We are now in a position to make a general statement as to the nature and origin of general infantilism. General infantilism is a variation of the process of normal development whereby it is seriously hindered at some stage prior to the appearance of puberty. There are two main biological divisions.

The one is a fluctuation. In other words, the appearance of the infantilism is determined by two factors, the one an inherent tendency for development to be curtailed, the other an environment, or its equivalent, which facilitates or accentuates the change. The variation is of a regressive character; hence the environment which is congenial to its appearance is itself of a regressive or depressive kind, and consists in the toxins or in the presence within the body of an imperfect or diseased organ which by correlation exerts an injurious influence upon the body as a whole. Or the depressive agency is exerted in a secondary manner through a secretion from one of the organs which preside over development. This form of infantilism is therefore symptomatic. Symptomatic infantilism being the outcome of a milder degree of variation is the less striking of the two forms, is usually of the Lorain type, and often terminates in ordinary dwarfism.

The other form of variation is more emphatic, for it tends to delay development to a still greater degree. It is so strong that it is in no way dependent upon the action of environment and is hereditary. It is a mutation, and like all mutations is prone to be accompanied by corresponding mutations in other directions. One of the most notable is that which affects the reproductive organs, stopping their development and tending, therefore, automatically to its own extinction. This important feature serves to divide mutational infantilism into two kinds—the sexual and the asexual. It must be recognised, however, that these merge one into the other, there being all sorts of gradations between them. Of infantilism as a mutation, or essential infantilism, there are two forms, ateleiosis and progeria. Either of these may appear at any age before puberty, giving rise to important differences in their appearance. Ateleiosis may therefore be divided into three classes, of which the first or most pronounced class originates in fœtal life, the second in infancy, and the third during childhood.

Ateleiosis being a mutation of a regressive kind virtually stops the development of the human being at a stage which corresponds to a similar stage in his evolution. Hence ateleiotics of the first class are often imbecile or lack intelligence. Those of the second class bear comparison with all that we know of certain short human beings who lived in the early Stone Age. The evidence we possess tends to show that palæolithic man varied widely in stature, in intelligence, and in many other characters. Yet he may be divided into two great classes. One was decadent, tending to the reproduction of the characters of a far earlier type of brute ancestry. Primitive man of this stamp was, as a rule, big-boned, coarse, muscular, brutal. Generally speaking, his cranial and facial characters were of the simian type. This same degenerate appearance tends to find expression in contemporary man under degenerating conditions. It is expressed in the natives of Australia and New Guinea. Traces of it are seen in the coarsening of the physiognomy, the drooping of the shoulders, the overhanging eyebrows of old age. It is sometimes markedly shown in that pathological degeneration which sweeps over the whole body in acromegaly and loosens the restraints of growth and development in nearly every organ of the body. It is manifested in the lowering of the brows, prominent jaws, coarse features, furtive expression, and stooping attitude of the criminal, and in the corrugated brows and clenched and exposed teeth of cruelty, brutality, and passion.

The second type of prehistoric man may be denominated the child type. The evidence that our descent has been from smaller to bigger and not from bigger to smaller is indicated in many ways. Man in his development recapitulates his ancestry. There are many traits in the life of a child which can only be explained as reminiscent of a corresponding stage in his evolution, and these functional evidences must correspond in some degree with an appropriate formation. There must be some fitness between the bodily architecture and the uses to which that body is put. The form of a child must be in many ways reminiscent of that of the savage ancestor who has handed down to him his social and ethical peculiarities. Evidence of this kind meets with support from tradition, which also points very clearly to the previous inhabitants of the earth having been of the big and degenerate type on the one hand, and of the small, child type on the other. Figures carved by these long-ago ancestors tend to confirm this impression.

Lastly, in certain inhospitable parts of the earth's surface, such as are calculated to stagnate development, there exist here and there races of dwarfs, many of whom approach the child in size and proportions. The nature of their surroundings, the character of their weapons, their tastes, habits, psychological characters, the contrast they present with their bigger neighbours, all tend to give the impression that they represent remnants of numerous dwarf peoples who at one time spread over the greater part of the earth's surface.

All this evidence points to the conclusion that the immature human being, stopped in his somatic development while still a child, but sexually perfect, reproduces in a general way the characters of his ancestors of the early Stone Age.

### INFANTILISM OF SENILE TYPE.

It has been observed that among the secondary eccentricities of development which accompany ateleiosis we meet with some which affect longevity. Although it is probable that ateleiosis, as a rule, is not conducive to a normal duration of life, there are a good many cases on record, having regard to the rarity of this form of infantilism, in which life has continued well beyond the normal three score years and ten. So that we naturally ask

whether it is right to regard ateleiosis as a disorder, seeing that even in its characteristic form it may rather protract than curtail the general curve of development. But as with other characters of ateleiosis, we have to fix our attention upon the condition as a whole rather than to select special cases. We can set off against these examples of abnormal longevity an equal number showing premature old age. Both extremes are abnormal and serve to impress us with the abnormality of ateleiosis itself.

Among the cases of premature senile decay or senilism which have supervened upon the infantilism of ateleiosis some have been of a very conspicuous character. One of these, described by the late Dr. Ransom,[23] is a very good example of the importance of not attributing infantilism to pituitary defect unless the evidence is pretty conclusive. For in this case the symptoms during life were exceedingly suggestive of a pituitary origin. The patient was a single woman, aged 27, who had left school at 12 owing to constant headache. There had been symptoms of diabetes for two years. She was 1307 mm. in height, equal to that of a child aged 10½ years. The face was said to be "juvenile, resembling that of a girl of 11 or 12, but also pinched and worn and with a suggestion of age." She was greatly emaciated. After death there were found "premature senile changes—e.g., atheroma, endarteritis, fibrosis of the thyroid, pancreas, spleen, mesenteric glands, and pituitary body." Mr. J. H. Targett pronounced the fibrosis of the pancreas to be "peculiar and not like the cirrhosis of diabetes." "The pituitary body was normal to the naked eye. Under the microscope there was a well-marked increase of fibrous tissue in the glandular portion, but on the whole the appearance of the gland cells was normal." "There was marked underdevelopment of the generative organs. Neither ovaries nor testis could be found, and the uterus was represented by a small T-shaped body, one inch long by one-third of an inch broad." Dr. Ransom regarded it as a case of asexual ateleiosis showing premature senile changes. And with that view I think we must agree. It seems to have been of the childish, or third, class.

I have myself elsewhere described other cases of infantilism of the senile type.[24] One of these was the celebrated French dwarf Bébé, who died from senile decay at the age of 22½ years. Here the occurrence of microcephaly and of syphilitic changes makes it difficult to determine the exact nature of the infantilism upon which the senilism supervened. Although as a rule the senilism is secondary to ateleiosis, as in Dr. Ransom's case and in one of my cases, it sometimes arises simultaneously with the infantilism, and this is progeria.

## PROGERIA.[25]

Although progeria was described in 1886 apparently only three undoubted examples have been recorded. The late Sir Jonathan Hutchinson was the first to give an account of a case[26] in 1886. I myself followed with another in 1902 and four years ago Dr. Variot and Dr. Pironneau,[27] of Paris, described a third case. There are also the more important bones, including the complete skull, of an example of progeria in this museum, fully described by Professor Keith[28] last year. The first two were in males, one of whom died at 17 and the other at 18, both from senile decay. Variot's case in a female is, I believe, still alive. To-day I am able, through the kindness of Dr. Arthur Davies, to mention a fourth case, in an adult man, not yet described.

I do not propose to enter into the details of this extraordinary malady. I need only state that it is characterised by profound infantilism running side by side with premature senile decay or senilism. Although it differs widely in its manifestations from ateleiosis, progeria is also an essential infantilism and can be traced to no definite cause. The characters of this infantilism are graphically brought out in Professor Keith's article in THE LANCET. He there makes a searching and convincing comparison between the skeletons of progeria and of acromegaly, between those of progeria and of ateleiosis, and between the two last and a normal skeleton. This comparison tends irresistibly to the conclusion that progeria is opposed to acromegaly. Moreover, he believes "it is possible that ateleiosis stands in the same relationship to progeria as giantism stands to acromegaly." M. Variot and M. Pironneau are, on the other hand, inclined to regard the series of changes in progeria as the result of suprarenal inadequacy.

The above-mentioned three cases were extraordinarily similar. The photographs which I have seen of Dr. Arthur Davies's case show that it differed in many particulars. But it is to be observed that none of these differences is fundamental. In all cases they are apparently to be explained on the ground that in Dr. Davies's case the disorder began at a much later age—that is, at a time when the formation of the body was completed. Hence the stature is not so short, the proportions are more adult, and the signs of premature senile decay are not so pronounced. But what is perhaps the most remarkable of these differences is that in Dr. Davies's case there is none of that emaciation which is such an outstanding feature of the earlier cases. This case bears out the opinion I have elsewhere expressed that progeria, like ateleiosis, should be divided into classes according to the age at which it begins. The cases hitherto recorded are examples of the progeria starting in infancy. Dr. Davies's case apparently began in late childhood. Doubtless it is sometimes also of fœtal origin, or does not show itself until adolescence, each class showing features distinctive of the period at which it began.

### *Progeria and Acromegaly.*

There are a few points about progeria which demand comment, for they are peculiarly pertinent to what has already been said about ateleiosis. The infantilism of progeria is evidently of the sexual order, for in both the cases which I have described the primary sexual organs were not abnormally backward in development, and the epiphyseal ossification about corresponded with their ages. This latter point was confirmed by Professor Keith in his examination of the skeleton in this Museum. There are two deductions to be made from this. One is that it emphasises what has already been said of the relations of sexual development to infantilism, for it is evident that though in progeria there is no backward development of sex, yet the

[23] Practitioner, September, 1906.
[24] Disorders of Post-natal Growth and Development, p. 638.
[25] Disorders of Post-natal Growth and Development, p. 646; Practitioner, vol. lxxiii., 1904, p. 188.
[26] Royal Medical and Chirurgical Society Transactions, 1886, vol. lxix., p. 36.
[27] Bulletins de la Société de Pédiatrie de Paris, 1910, p. 307; La Clinique Infantile, vol. viii., 1910, p. 705.
[28] THE LANCET, 1913, vol. i., p. 309.

individual is, as Professor Keith shows, in many ways in a state of profound infantilism. Infantilism, therefore, is quite consistent with sexual perfection.

The second point is that although morphologically these early cases of progeria are in so many important respects opposed to acromegaly they differ widely and fundamentally from Fröhlich's infantilism. Thus, so far from showing the lumpy obesity of pituitary infantilism, these beings are exceedingly emaciated. They resembled the extreme leanness to be seen in the victims of famine. And even more important is the fact that sexual hypoplasia, such an essential feature of pituitary infantilism, was certainly absent in all the male cases.

Finally, it is not possible to find any direct evidence of pituitary hypoplasia from an examination of the sella turcica. Professor Keith says of his case: "The pituitary fossa is smaller than normal, and yet the reduction in size is not sufficient to justify us in affirming that insufficient glandular tissue was present." And in Dr. Davies's case a skiagram of the base of the skull shows that the pituitary fossa is of normal size and appearance.

Hence the facts which bear on the relationship between acromegaly and progeria seem inconsistent, for whereas Professor Keith's osteological observations point emphatically to the one disease being the antithesis of the other, a comparison between the symptoms of pituitary overgrowth (acromegaly) and of pituitary undergrowth (Fröhlich's infantilism) on the one hand, and of Fröhlich's infantilism and progeria on the other hand seems contradictory.

The view I have myself for a long time held in regard to these two conditions is that we ought to look upon progeria as in no way secondary to any derangement or imperfection of the pituitary body, but as itself primary and essential, the infantilism being in reality the fundamental condition and the senilism its immediate and direct outcome. Progeria is thus opposed to acromegaly only because progeria represents an extreme form of infantilism, whereas in acromegaly we see exaggerated features of senility. In this respect much the same may be said of ateleiosis. Indeed, Dr. Woods Hutchinson long ago pointed out the opposed characters of infantilism and of acromegaly. Infantilism is opposed to acromegaly because the infantilism perpetuates the childish or undeveloped type, no matter whether we regard it from the point of view of the individual or of the race; whereas acromegaly expresses in an exaggerated form the ape-like characters of senile decay as well as the degenerate, simian forms of evolutionary man.

### CONCLUSION.

I am at the end of my subject, but cannot conclude without calling attention to its importance. It is of great importance, partly for its own sake, partly in its bearing upon the nature and relief of certain morbid states, chiefly for the sake of the strong light which it throws upon ordinary growth and development. The exaggeration of disease, like the lenses of a microscope, enable us by magnification to see features which would otherwise escape observation. No one can study such extremes as dwarfism, gigantism, infantilism, and senilism without coming to a far better understanding of normal growth and development than is possible to anyone who confines his investigation to the normal.

# THE MORBID ANATOMY OF TUBERCULOSIS IN MAN.

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(*Concluded from p. 603.*)

*The Portals through which Tubercle Bacilli Invade the Human Body.*—(Continued.)

*The respiratory tract.*—Under this heading there has already been considered the question of the portals of invasion in tuberculosis of the lungs and their regional glands, the conclusion being reached that most such cases arise from aerogenic infection. The next question to be dealt with is—

*The relationship of tuberculosis of the tonsils and deep cervical glands to tuberculosis of the lungs and bronchial glands.*—Orth was the first to demonstrate primary tonsillar tuberculosis. Aufrecht believed that the tonsils are the commonest portals of entry for the tubercle bacillus. Trautmann emphasises the importance of the tonsillar portal in tuberculosis of the cervical glands. Hansemann found primary tonsillar tuberculosis in only 1 per 1000 of his cases. Geipel and others regard tonsillar tuberculosis as invariably secondary to disease lower down in the respiratory tract.

On analysing the 111 cases of tuberculosis in children undergoing post-mortem examination in the Edinburgh Sick Children's Hospital during the period 1910–13—that is to say, during part of a period when special attention was being directed to the condition of the tonsils and cervical glands—I find that the tonsils were the seat of tuberculous disease in 11 cases (9·9 per cent.), and the cervical glands were caseous in 28 cases (25·2 per cent.). I have sought carefully for evidence supporting the view of Klebs and Grober that a tuberculous infection can pass directly from the lower deep cervical glands to the apex of the corresponding lung, and I can find only the following cases, and these can be explained on more rational grounds.

CASE 1.—Male, aged 8 years. Extensive caseation of tonsils and cervical glands; fibro-caseous pleurisy over the whole of the left lung, and over the upper part of the right. Bronchial glands caseous, both sides. Subacute to chronic grey miliary, peribronchial tubercles. Small caseous nodules in substance of spleen and kidneys. No ulceration of intestines. No excavation of lungs. Spread to peritoneum from pleura. Caseous nodules in meninges.

CASE 2.—Male, aged 1 year. Right tonsil and cervical glands show advanced caseation; firm adhesions over the right apex; bronchial glands enlarged and caseous on the right side. Acute miliary tuberculosis of lungs, peritoneum, liver, and spleen (the last also containing chronic tubercles). One small recent tuberculous ulcer in ileum.

CASE 3.—Male, aged 13 years. Much enlarged and caseous supraclavicular glands on left side; mass of caseous glands at root of left lung, extending up to apex and pressing on it; numerous yellow tubercles in thickened pleura. Yellow tubercles in left lung; small cavity at *right* apex. Root and mediastinal glands enlarged and caseous.

In Case 1 we have a primary tuberculosis of the tonsils and cervical glands, lymph-hæmic invasion of the lungs, bronchial glands, spleen, kidneys, and meninges, and possibly a direct spread from the cervical glands to the pleuræ. The second and third cases may be explained in the same manner as the first, or as due to simultaneous infection through the tonsils and lower respiratory passages. I agree, therefore, with those authorities who maintain that no absolute proof of Klebs's and Grober's hypothesis

exists, and that pulmonary tuberculosis seldom or never results by direct spread to the lungs from the supraclavicular glands, though it may do so by invasion from these glands, as from other parts of the body, by way of the lymph and blood streams.

*Is an extension of tuberculosis possible from the cervical glands to the superior mediastinal and bronchial glands?*—I have frequently noticed a continuous chain of enlarged and caseous glands stretching from the mastoid to the root of the lungs. Excluding those cases which an efficient examination shows to be the result of simultaneous ascending and descending infections meeting at the root of the neck, old lesions being present in the lungs and tonsils, I have no hesitation in asserting that, at least in Edinburgh, we occasionally meet with cases which one can explain only by assuming a downward extension throughout. These cases may be placed in two groups: (*a*) One in which extensive caseation and softening are seen in the clavicular group, or in the closely related group of glands in the superior mediastinum abutting on and sometimes infecting the thymus, the bronchial glands showing a more recent stage of tuberculosis, and the lungs showing either no tuberculosis or a more recent tuberculosis than that in the glands. (*b*) The other group of cases shows a continuous chain of caseous glands extending from the mastoid process to the root of the lung, the changes in the upper glands being of older date than those in the bronchial glands, the infection in the case of the lower glands being either retrograde or by direct extension *per contiguitatem*.

This I maintain, even in face of the acknowledged anatomical relationships of all these glands to the thoracic duct and angulus venosus, and also in face of the fact that in consequence one must assume a retrograde infection to the bronchial glands, just as in hilus phthisis one must assume a retrograde extension to the lungs from the bronchial glands, the channels through which have been blocked by caseation. Hart and Beitzke have shown conclusively that a retrograde infection of the lower tracheal glands can occur, partly as a result of the distension of the lymphatic trunks behind caseous glands, with resultant incompetence of their valves and stagnation of the lymph contained, and partly in consequence of the sucking backwards of the lymph towards the thorax, caused by the expansion of the thorax in inspiration. I may remark here that those authors who would restrict the progress of the tubercle bacillus to the ordinary anatomical lymphatic main channels apparently totally disregard the presence of anastomotic connexions between these channels.

A. P. Mitchell's work, in Edinburgh, is of great interest as showing the special danger run by the children in that city and neighbourhood from tuberculous infection by way of the tonsils and cervical glands. In 64 consecutive young children suffering from tuberculosis of the upper deep cervical glands he found histological evidences of tuberculous infection of the tonsils in 39 per cent. In 90 cases in which the cervical glands were clinically healthy the tonsils were histologically tuberculous in 6·5 per cent., and 10 per cent. gave positive results on inoculation of guinea-pigs. In a series of 72 consecutive cases of cervical gland tuberculosis, operated on by Mr. H. J. Stiles at the Sick Children's Hospital in Edinburgh, Mitchell found that 65, or 90 per cent., had been infected with the bovine bacillus, whereas only in 7, or 10 per cent., had the disease been caused by the human bacillus. The maximum incidence occurred during the second year of life. 84 per cent. of these children had been brought up upon unsterilised cow's milk. In not a single case amongst the 65 of bovine origin was there a history of pulmonary tuberculosis in other members of the family. Practically 50 per cent. of the cases came from rural districts in which there is little or no veterinary supervision of dairy cattle.

Lewis found that, of his cases of cervical tuberculous lymphadenitis, four-fifths of those over 15 years of age were due to infection by the human bacillus, whereas seven-ninths of those under 15 years of age were due to infection by the bovine bacillus. Carmichael and Stiles examined 50 tonsils from cases of cervical gland tuberculosis, and of these 7 (14 per cent.) showed histological evidence of tuberculosis.

*Infection of thoracic glands from below.*—The efferent trunks from the bronchial glands drain upwards, normally, into the angulus venosus, possibly having relationships with the efferents of the superior mediastinal and tracheal glands.

I have seen occasionally a large group of caseous glands situated behind the sterno-clavicular joint, and as frequently on the right side as on the left, involved in tuberculous caseation. These, I take it, correspond to the clavicular glands referred to by Beitzke, Hart, Most, and others. They also drain into the angulus venosus. This group may instead be the upper glands of the interpal mammary chains which pass upwards behind the sternum on either side. Of these I can find no mention in the literature of tuberculosis. The efferents of these glands drain into the veins at the root of the neck, occasionally, as figured by Poirier, having junctions with the efferents from the bronchial glands. Their afferents come from the prepericardial glands, which lie along the anterior margin of the diaphragm, on its upper surface, and the afferents of these diaphragmatic glands come from the upper surface of the liver and from its hilic glands. I find tuberculosis of the prepericardial glands especially in extensive tuberculosis of the abdomen. These chains of glands afford a route for a spread of infection from the abdomen to the thoracic glands, and probably also to the pleura in addition to the recognised spread directly to pleura through the diaphragm. The following case is typical:—

Male, 17 months old. Ill for three months with diarrhœa and vomiting; fæcal fistula. Tonsils and deep cervical glands healthy, non-tuberculous. Isolated firm submaxillary gland on either side. General subacute adherent peritonitis; a few caseous mesenteric glands; retroperitoneal and hilic glands very large and caseous; semicircle of caseous glands above anterior margin of diaphragm; chain of internal mammary glands on either side of sternum, enlarged and caseous; large group of caseous glands behind the right sterno-clavicular joint. Lungs and bronchial glands healthy, except for a few miliary grey tubercles. No tubercles in liver, kidneys, or spleen.

Other cases show, in the cervical region and thorax, only the group behind the sterno-clavicular joint tuberculous, with a varying amount of tuberculous change in the abdomen. It is well known that this group of glands frequently shows metastatic spread from carcinoma of the stomach, and the explanation advanced hitherto has been that the secondary invasion has taken place by retrograde transport from the thoracic duct. It seems extraordinary that the direct internal mammary

route has been completely disregarded, particularly as its existence affords a much more satisfactory explanation. In exceptional cases I have found these superior mediastinal glands alone tuberculous, no disease being present in the organs or other lymphatic glands. Such cases are difficult of explanation.

*Tuberculosis of the bronchial and root glands in relation to tuberculosis of the lungs.*—Bartel regards the bronchial glands as especially susceptible to invasion by the tubercle bacillus. I have already referred to the view that this hyper-susceptibility is due to the circumstance that the bronchial glands are less trained in defence than the mesenteric glands, seeing that the latter, being associated with a hollow organ which is constantly full of bacteria, are constantly fighting against invasion by these bacteria, and are in consequence better trained to resistance.

Baumgarten and also Horton-Smith state that caseation of the bronchial glands is relatively infrequent in pulmonary phthisis, particularly in the adult. My own experience supports this statement. Köhler explains it on the ground that the lymphatic channels become obliterated by the chronic inflammatory processes going on to scar formation, which always accompany the more chronic forms of pulmonary tuberculosis.

Albrecht and Arnstein found either macroscopic or microscopic evidence of tuberculosis of the bronchial glands in 87 per cent. of cases between the ages of 6 and 16; and in 68 per cent. the disease was progressive. In relation to tuberculosis of abdominal glands, Rillet and Barthez found the relative proportion to be as 76 to 46; Guthrie, 54·5 to 26·6; Still, 81 to 59; Shennan, 65·4 to 53; Lapage and Mair, 55 to 71; Burkhardt, 58 to 30.

In 105 cases of tuberculosis undergoing post-mortem examination in the Royal Hospital for Sick Children, Edinburgh, between 1886 and 1889 the bronchial and mediastinal glands were found to be caseous in 82·8 per cent. In 308 tuberculous cases examined post mortem between 1889 and 1902 these glands were tuberculous in 62·9 per cent.; and in 111 cases dying from tuberculosis between 1910 and 1913 the same groups of glands were tuberculous in 54·9 per cent. The figures for these three periods thus show a progressive diminution, which accords with the general results given in Table I. Further, I may remark that this diminution, occurring along with a corresponding diminution in the death-rate from pulmonary phthisis, justifies my standpoint that both these manifestations of thoracic tuberculosis are in most cases sequels of an air-borne infection.

Taking the whole number of cases, the bronchial glands were caseous in 65·4 per cent. In a very high percentage of these cases there existed no older tuberculous change in the lungs, and I have formed the very decided opinion that in children in a very large proportion, possibly in the majority of cases, the spread of open tuberculosis of the lungs is rather from gland to lung than *vice versâ*.

There seems no reason to doubt that, as regards the original infection of the glands, the infective agent has reached them by way of the lungs, the tubercle bacilli being carried by phagocytes to the peribronchial lymphatics, along which they have then been carried to the bronchial glands, either with or without producing a primary tuberculosis of the lung or bronchus. One must also admit the possibility of a lymph-hæmic infection of the lungs and their regional glands, or of the glands alone by way of the lungs, from other parts of the body. The other routes by which an infective agent may reach the bronchial glands have already been considered.

*Primary foci in the lungs.*—We must now consider the question as to whether, in tuberculosis of the bronchial glands, an earlier lung focus exists in every case.

Goldschmid in his 595 cases found healed tuberculosis of the bronchial glands in 185 cases, against 272 cases in which there existed healed tuberculosis of the lungs without implication of the regional glands. In 5 per cent. of his cases there was isolated tuberculosis of the glands, and in 59 per cent. simultaneous tuberculosis of lungs and glands. Heinrich Albrecht and Anton Ghon are convinced that in every case an aerogenic infection is responsible for the primary lung focus which is always present, and is usually placed peripherally in the lungs. I have already referred to this view. Naegeli evidently regards all peripheral, slaty, scar-like areas in the lungs as of tuberculous nature and origin, whence his high percentage—almost 100 per cent.—of tuberculous infection in man. Burkhardt placed the figure at 91 per cent. Beitzke maintains that, unless caseous or calcareous alteration be present, it is a mistake to regard all these scars as of tuberculous nature, and lowers the percentage of tuberculous infection to 13·6, at ages 0 to 15 years, and to 58·2 per cent. in adults. Goerdeler also strongly supports this conclusion, and shows that disease processes other than tuberculosis can produce changes in the lungs extraordinarily like those of tuberculosis. Köhler maintains that by reason of the chronic inflammation always accompanying chronic lung tuberculosis the lymph vessels become obliterated, whence one may judge that he is of opinion that tuberculosis of the bronchial gland is not of necessity the sequel of the old lung infection denoted by these chronic foci; and I must say that I see no reason why they may not be due to a separate new infection in many cases. Preisich found tuberculosis of the bronchial glands in children of all ages, without demonstrable tuberculosis of the lungs. Hedrén regards the bronchial gland tuberculosis as invariably prior to the lung tuberculosis in the child; and Theodore Fisher looks upon measles and non-tuberculous broncho-pneumonia as acting like any other inflammation of the lungs by tending to facilitate a spread of tuberculous infection from the glands to the lungs.

### *Tuberculosis of the Lungs.*

Very little really satisfactory has been determined in connexion with the localisation of tuberculous processes in the lungs.

Bacmeister and Rueben produced apical tuberculosis in rabbits by compressing the upper part of the lung and introducing small numbers of tubercle bacilli over a prolonged period of time. Orsós states that sub-pleural pigmentation is always greatest along lines corresponding to the intercostal spaces, and that in the same areas old scars of tuberculosis tend to be situated. Hence bacteria, like pigment, settle down in the lung where there is least movement and distortion of the vesicles. His conclusions may be correct, but his premisses are not quite accurate, to judge from my own experience, which agrees with that of Beitzke, Aschoff, and Marchand, and supports the view that pigment is first deposited along lines corresponding to the position of the ribs. This is most easily

determined in cases of voluminous grey hepatisation in which the pleural surface of the lung is furrowed where it has been compressed by the ribs.

Benjamin Moore believes that the tubercle bacillus selects the least oxygenated parts of the lungs, and the observations of Serog support this view. He relates two cases in which compression of a main bronchus by an aneurysm had been followed by tuberculosis of the part of the lung served by that bronchus. Schmorl blames compression of the apical portion of the lung by the first rib, but Schmorl's furrow is not always present in apical tuberculosis. Hart and Freund believe that calcification of the first rib cartilage interferes with the function of the apical part of the lung and predisposes it to tuberculosis, but Schultze, Schiele, and Révèsz show that there is no evidence in favour of this, and maintain that the calcification of the first rib cartilage is rather a result of the firm adhesions which form over the apical portions of the lung. Certainly, judging from the almost invariable occurrence of this calcification after the mid-term of life in all cases undergoing post-mortem examination, and without in most cases involvement of the lungs, the relation of that condition to apical tuberculosis is, to say the least, doubtful.

We have to admit that the reason of the localisation of tuberculosis near the apices of the lobes is not yet clear, but it is probably in great measure related to some interference with the aerating function of these areas of the lung, and possibly partly to the tendency for particles conveyed in the respired air to settle down in the upper parts of the lung.

In children excavation may occur at any part of the lung, and almost as often in the basal areas as near the apices. It may be found at a very early age—for example, one of my cases was only 3 months old. Chronic tuberculous changes are not common in children, in whom the rule is to find rapid spread, with destructive changes and early generalisation. Nevertheless, evidences of resistance appear occasionally at an early age. Geipel found a tendency to localisation of tuberculous foci as early as the third month and calcification at the sixth month. I myself have found an old cavity at 5½ months, old, hard, caseous foci in the lung at the fourth month, chronic tuberculous pleurisy at the fifth month, and calcification of bronchial glands at the ninth month.

*Hilus phthisis.*—It seems to be quite certain that in some cases direct spread takes place from caseous root glands to the lung. Hilus phthisis is one of the results. Steffenhagen, Leon, Leslie, Jordan, and others, have discussed the question, and all pathologists have seen such cases. Geipel speaks of some cases of pulmonary tuberculosis as having the aspect of an aspiration infection. Erich Sluka with the aid of the X rays demonstrated its presence in 37 cases, and Jordan and Leslie confirm the usefulness of this means of diagnosis. It is apparently fairly satisfactory, but I must point out that Geckler found no tuberculous change at the post-mortem examination of a case in which hilus phthisis was diagnosed during life, with the help of the X rays.

### *Other Manifestations of Tuberculosis in Man.*

I have dealt so fully with the manifold aspects of tuberculous infection of the thoracic organs that I have space for only a few remarks upon tuberculosis of the other organs and parts of the body. There is no room for doubt that in Edinburgh we meet with a larger number of primary alimentary infections than are found in most other parts of the world. Sims Woodhead, John Thomson, Fordyce, Fraser, Mitchell, McNeil, and I myself have published data proving this, so that I need not labour the point.

*Intestinal tuberculosis.*—In this connexion I have only one or two points to bring forward.

(*a*) When a recent tuberculous manifestation is found in the wall of the intestine, in association with older caseous tuberculosis of the mesenteric and retroperitoneal glands, one frequently concludes that the intestinal condition is secondary to the tabes mesenterica, retrograde infection having occurred. This conclusion is of questionable validity, the more plausible explanation being that the recent intestinal tuberculosis is really due to a new infection by organisms which have reached the bowel by deglutition, at a later period of time than those which have passed through its walls without causing a local lesion, but have been caught in the glands, and have produced caseation in that situation.

(*b*) In a case which I examined post mortem of cicatrising tuberculous ulceration near the commencement of the jejunum signs had been present during life of hypertrophic pyloric stenosis. The stomach was dilated and the pylorus was thickened; the duodenum was also dilated and its muscular coats were somewhat hypertrophied; but the ultimate cause of the symptoms and of these appearances in stomach and duodenum was as I have stated.

No new facts have emerged in connexion with *hyperplastic ileo-cæcal tuberculosis*, and I have nothing to add to what is already known about that manifestation of tuberculosis.

Fischer has made interesting observations on the channels along which invasion takes place from the alimentary tract. He shows that the blood route by way of the mesenteric veins is very seldom taken, but that invasion takes place as readily by way of the portal vein as by way of the lymphatics and thoracic duct. The liver acts as a bacterial filter (Weigert), but few of the bacilli caught in it produce serious lesions.

*Meningeal tuberculosis.*—It seems to be generally accepted that the usual channel through which the meninges are attacked is the blood stream. This is almost certainly correct, seeing that in the majority of cases an acute meningeal tuberculosis forms part of a generalised tuberculosis. But though it is not the usual route, as was taught by Greenfield, the lymph channel is not excluded. I have followed such cases during life and have found evidence post mortem that this route is sometimes taken.

*Tuberculosis of bones and joints.*—In a recent communication Stiles stated the case with regard to tuberculosis of bones and joints with admirable clearness. In tuberculosis of bones and joints infection practically always occurs by way of the blood stream; in a large proportion of cases the primary focus being situated in the lymphatic glands, especially the deep cervical, the bronchial, and the mesenteric. The localisation in the *bones* is determined by the distribution of the intra-osseal blood-vessels, and in children is most often in the growing end of the diaphysis (metaphysis), the end of the bone affected being determined by the direction of the nutrient artery. In the *joints* occasionally the synovial membrane is primarily attacked, for example, in the knee; but extension

more often takes place from bone. The joints which possess small epiphyses—for example, the elbow and hip, in which therefore the diaphysis is near to the joint—are more readily and earlier attacked than others. In the rare cases in which the disease begins in the epiphysis it does so because these are large and begin to ossify at an early age.

In Scotland a large proportion of surgical tuberculosis is of bovine origin. The work of John Fraser is now well known. Of the 67 consecutive tuberculous bone and joint cases which he investigated the bovine bacillus was present in 41 (61 per cent.), the human bacillus in 23 (34 per cent.), while in 3 cases the bacilli were of intermediate type. In 41 of the children who were under 4 years of age 78 per cent. had been infected with the bovine bacillus. In *all* of those under 12 months of age the bovine bacillus was the cause of the disease, and every one of these had been entirely nourished on unsterilised cow's milk. For other interesting details one must refer to Fraser's paper. The important paper by Burkhardt is also well known. He investigated 29 cases of tuberculosis of bones and joints, and found the bovine bacillus in 3 cases only—ages 11, 14, and 19. Only 2 of his cases were under 3 years of age.

I regard the work of these two investigators as not necessarily contradictory, but instead they may be mutually complementary, seeing that the average age in Fraser's cases is 5½ years, whereas in Burkhardt's cases the average age is 15 years. I prefer, however, to regard their differing and apparently discordant results as affording one more proof of the prevalence of bovine infections in Scotland to a greater extent than is the case in other parts of the world, even in England—a fact that has been well recognised for some time by a few workers in Scotland. I therefore conclude that the relative frequency of bovine and human infections of bones and joints depends upon the relative frequency of bovine and human infections in general. Hence it is not surprising, but on the contrary, it is to be expected, that in those parts of the world in which human infections predominate greatly a larger proportion of cases of tuberculosis of bones and joints are due to infection with that bacillus than in parts—e.g., Scotland—where bovine infections are more frequent.

This argument suggests to me an interesting and very important point in connexion with *pulmonary tuberculosis* in children. If the conditions be as I have just stated, then the same reasoning should be applicable to tuberculous infections of the lungs and regional glands, and, provided it be the case that in children a lymph-hæmic invasion of the lungs can occur, then in pulmonary tuberculosis in children in Scotland we ought to have a larger proportion of bovine infections than elsewhere. It will be interesting to see if investigations just entered upon will show the validity of this argument. The great difficulty which will be encountered in such investigations is in connexion with the more chronic lesions in the lungs, because from previous work to which I have already referred the bovine tubercle bacillus, on long residence in the body, while retaining many of its characteristics, tends to lose its virulence, which after all furnishes one of the most important means for determining its identity. Nevertheless, it is hoped that in children this difficulty may prove less troublesome than is anticipated.

*The Histogenesis of the Tubercle.*

Joest and Emshoff found that the earliest changes in experimental animals is a proliferation of cells of connective tissue type, but most observers seem to agree with Baumgarten's original view that both connective tissue and endothelium are involved, and that the lymphocyte aggregation at the periphery of the tubercle is not essential, but is an indication of later chemotactic action. The method of formation of the giant-cell of tubercle is not yet settled. Most are in favour of its being due to a coalescence of endothelioid cells, but many still maintain that it is due to excessive proliferation of the nucleus of a single cell without the protoplasm participating in the cell division. Probably both methods are at work, though I believe that the former is the commoner.

*Conclusions.*

1. In Scotland the maximum death-rate from tuberculosis occurs during the 25–35 age-period; in England during the 35–45 period.

2. In Scotland the maximum percentage death-rate from tuberculosis calculated on the number of deaths from all causes, at each age-period, occurs in the female during the 15–20 age-period, and in the male during the 20–25 age-period. The percentage of deaths from tuberculosis in females during the 15–20 age-period is 52·69.

3. The death-rates from tuberculosis in different towns and cities in Scotland bear no clear relationship to the number of inhabitants or to the density of population. Other factors must be involved.

4. Hypersensitiveness due to a primary infection is probably of great importance in relation to reinfections. Reinfections arise not necessarily from a previous focus in the body, but must frequently be new infections from without.

5. The majority of cases of tuberculosis of the lungs and their regional glands are the result of aerogenic infection.

6. Retrograde infections do occur.

7. There is no evidence in favour of a spread by direct continuity from the deep cervical glands to the lungs.

8. The right lung and its regional glands are more often the seat of tuberculosis than the left.

9. In children manifest tuberculosis of the lung is very frequently a sequel of tuberculosis of the bronchial glands.

10. Little satisfactory is known of the factors which determine the localisation of the disease in the lung.

11. Chronic fibro-caseous tuberculous foci in the lungs and caseation of the related bronchial glands may be caused by separate infections.

12. In Scotland bovine infections in childhood are commoner than in most other parts of the world.

13. The relative frequency with which bovine or human infections occur in any given organ or tissue, and the differing incidence of these infections in different localities, depend on the relative general frequency of infections with these two types of the tubercle bacillus. This differs in different localities.

*List of papers consulted while preparing this report.*—A short indication of their subject-matter is given in each case. Albrecht, H.: Tuberculosis in Childhood, Wiener Klinische Wochenschrift, 1909, Nr. 10, S. 327. Albrecht, H., and Arnstein, A.: Tuberculosis of Lymphatic Glands, Verhandlungen der Deutschen Pathologischen Gesellschaft, Jena, 1912, Band xv., S. 124. Arbeiter, W. C. A.: Primary Intestinal Tuberculosis, ref. Internationales-Centralblatt für die gesammte Tuberkulose-Forschung, 1912, Nr. 2, S. 75. Aschoff, L.: Discussion on Orsós' paper. Austrian, C. R.: Hypersensitiveness and Immunity, Johns Hopkins Hospital Bulletin, Baltimore, 1913, vol. xxiv.,

No. 263, p. 11. Babes, V., and Goldenberg: Fibrin and Fat in Pulmonary Tuberculosis, Comptes Rendus de la Société de Biologie, Paris, 1912, vol. lxxii., p. 290. Bacmeister and Rueben: Secondary Tuberculosis, Deutsche Medizinische Wochenschrift, 1912, Band ii., S. 2350. Bauer, R.: Rupture of Caseous Gland into Aorta, Wiener Klinische Wochenschrift, 1912, Nr. 34, S. 1285. Baumgarten: Pathology of Tuberculosis, ref. Internationales Centralblatt für die gesammte Tuberkulose-Forschung, 1913, Nr. 8, Jahrg. vii., S. 439. Beitzke, H.: Channels of Infection, Virchow's Archiv, 1907, Band cxc., Beiheft; Ibid., 1912, Band ccx., S. 173; Centralblatt für allgemeine Pathologie, 1913, Band xxiv., Nr. 5, S. 200. Bernard, L.: Renal Tuberculosis, Medical Press and Circular, London, 1912, N.S., vol. xciii., p. 299. de Besche, Arent: Tuberculosis in Childhood, Deutsche Medizinische Wochenschrift, 1913, Nr. 16, S. 852. Bezancon, F., and Gastinel, P.: Corticalité Pulmonaire Caséeuse, Progrès Médical, Paris, 1912, 3 S., vol. xxviii., p. 515. Bianchi, D. Cesa: Dust Inhalation in Relation to Infection, Zeitschrift für Hygiene, 1912, H. 73, S. 161. Bishop, H. D.: Non-Tuberculous Milk in Guernsey, THE LANCET, 1912, vol. i., p. 258; Brit. Med. Jour., 1912, vol. i., p. 217. Böcker, W.: Circumscribed Tuberculosis of Bone, Deutsche Medizinische Wochenschrift, 1912, Band xxxviii., S. 2117. du Bois, C.: Tuberculose Verruqueuse, Revue Médicale de la Suisse Romande, Génève, 1912, vol. xxxii., p. 858. Bontemps, H.: Prevention of Microscopic Errors of Diagnosis, Deutsche Medizinische Wochenschrift, 1913, Band xxxix., S. 454. Boymann, F.: Miliary Tubercle, Virchow's Archiv, 1911, Band cevi., S. 304. Bowmann, Winternitz, and Evans: Vital Staining, Centralblatt für Bakteriologie, I. Abt., 1912, Band lxv., Orig., S. 403. Brooks, W. T., and Gibson, A. G.: Retrogressive Tuberculous Meningitis, THE LANCET, 1912, vol. ii., p. 815. Bulloch, W.: Pathology of Pulmonary Tuberculosis, System of Medicine, Allbutt and Rolleston, 2nd edition, vol. v., 1909, p. 99. Burgess, A. M.: Origin of Giant Cells, Journal of Medical Research, Boston, 1912, vol. xxvii., No. 2, p. 125. Burkhardt, A.: Frequency and Origin of Tuberculosis, Zeitschrift für Hygiene, 1906, Band liii., S. 139. Calmette, A.: Invasion and Dissemination of Tubercle Bacilli, Revue d'Hygiène, Paris, 1912, vol. xxxiv., p. 358. Cobbett, L.: Portals of Entry, Transactions of the Royal Society of Medicine, London, vol. iv., Section of Diseases of Children, p. 205. Collet: Laryngeal Tuberculosis, Archives Générales de Médecine, Paris, 1912, vol. v., p. 1061. Copeland, E. P.: Tuberculosis in Childhood, Medical Record, N.Y., 1913, vol. lxxxiii., p. 476. Cunningham: Relations of Tuberculosis of Kidney to Tuberculosis of Lung, Boston Medical and Surgical Journal, 1911, vol. clxv., No. 23, p. 872. Dupérie, R.: Tuberculous Meningitis, Revue Internationale de la Tuberculose, Paris, 1911, vol. xx., p. 177. Ehrenreich, S. G.: Incipient Pulmonary Tuberculosis, New York Medical Journal, 1913, vol. xcvii., p. 190. Ely, L. W.: Bone Syphilis Resembling Tuberculosis, Medical Record, N.Y., 1912, vol. lxxxi., p. 1179; Joint Tuberculosis, Berliner Klinische Wochenschrift, 1913, Nr. 6, S. 256. Emrys-Roberts: Portals of Entry, Brit. Med. Jour., 1913, vol. i., p. 210. Felberbaum, D.: Massive Tuberculosis of Liver, New York Medical Journal, 1912, vol. xcvi., p. 481. Fischer, B.: Alimentary Infection in Relation to Lung Tuberculosis, Frankfurter Zeitschrift für Pathologie, Wiesbaden, 1910, V. 395; Primary Alimentary Tuberculosis in Adults, Wiener Medizinische Wochenschrift, 1908, Band. xxxviii., S. 1966. Fisher, T.: Relation of Measles to Tuberculosis, Brit. Med. Jour., 1912, vol. i., p. 703. Förster, O.: Circumscribed Tuberculous Meningitis, Berliner Klinische Wochenschrift, 1912, Band xlix., S. 184. Fraser, J.: Human and Bovine Tuberculosis, Journal of Experimental Medicine, vol. xvi., 1912, No. 4, p. 432; Brit. Med. Jour., 1912, vol. ii., p. 1432; Tuberculosis of Bones, Journal of Pathology and Bacteriology, 1912, vol. xvii., p. 254, Edinburgh Medical Journal, 1912, November, p. 436. French, H.: Ileocæcal Tuberculosis, Guy's Hospital Reports, London, 1911, vol. lxv., p. 285. Gayet: Multiple Strictures of Small Intestine, Lyon Médical, 1912, vol. cxvii., p. 91. Geckler, W. A.: Hilus Phthisis, ref. Internationales Centralblatt für die gesammte Tuberkulose-Forschung, 1912, November, Nr. 1, S. 8. Geipel, P.: Tuberculosis of Infants, Zeitschrift für Hygiene, 1906, Band liii., S. 4. Goldschmid, E.: Relation of Bronchial Gland Tuberculosis to Tuberculosis of Lungs, Frankfurter Zeitschrift für Pathologie, 1910, Band iv., S. 203. Goerdeler, G.: Kriterien der Abgelaufenen Tuberkulose der Lungen, Zeitschrift für Klinische Medizin, 1912, Band lxxvi., H. 3-4, S. 278. Haerle, Gertrud Tabithe: Lymph-gland Tuberculosis and Hodgkin's Disease, Frankfurter Zeitschrift für Pathologie, 1912, Band xi., S. 345. Hamburger, F.: Tuberculosis a Disease of Childhood, Münchener Medizinische Wochenschrift, 1908, Nr. 52, S. 2702; Statistics, Wiener Klinische Wochenschrift, 1907, Nr. 36, S. 1069. Harbitz, F.: Congenital Tuberculosis, Münchener Medizinische Wochenschrift, 1913, Band i., S. 741. Hart, C.: Etiology of Phthisis, Deutsche Medizinische Wochenschrift, Band xlviii., S. 1774; Berliner Klinische Wochenschrift, 1912, Band xlix., S. 2024. Hedinger, E.: Tuberculosis of Thyroid, Deutsche Zeitschrift für Chirurgie, Band cxvi., 1912. Hedrén, G.: Tuberculosis of Children, Zeitschrift für Hygiene, 1912, Band lxxiii., H. 2, S. 273. Hillenberg: Infantile Infection in Relation to Phthisis Problem, Deutsche Medizinische Wochenschrift, 1912, Band ii., S. 2032. Huguenin: Tuberculosis exclusively Glandular, Revue Médicale de la Suisse Romande, Génève, 1912, vol. xxxii., p. 412. Hymanson: Tuberculosis in Childhood, Archives of Pediatry, N.Y., 1912, vol. xv., p. 571. Joly, J.: Tuberculous Osteo-arthritis, Gazette Médicale de Paris, 1912, vol. lxxxiii., p. 254. Jordan, A. C.: Hilus Phthisis, Practitioner, London, 1912, February, p. 248; Brit. Med. Jour., 1912, vol. ii., p. 484. Köhler, F.: Jahresbericht (1911), Klinisches Jahrbuch, 1913, Band. xxvi., S. 473. Kossel, H.: Human and Bovine Tubercle, Brit. Med. Jour., 1905, vol. ii., p. 1445. Krause, P.: Tuberculous Meningitis, Deutsche Medizinische Wochenschrift, 1912, Band xxxviii., p. 1913. Lapage, C. Paget, and Mair, Wm.: Tuberculosis in Childhood, THE LANCET, 1913, vol. i., p. 969. Leslie, R. M.: Hilus Tuberculosis, Clinical Journal, London, 1912-13, vol. xli., p. 241; British Journal of Tuberculosis, vol. vii., 3, p. 160. Leon: Hilus Phthisis, Proceedings of the Royal Society of Medicine, London, 1912-13, vol. vi., Section of Study of Disease of Children, p. 163. Lewis, P. E.: Tuberculous Cervical Adenitis, Journal of Experimental Medicine, 1910, vol. xii., p. 82. McCulloch, H. D.: Tuberculosis of Lymphatics, THE LANCET, 1913, vol. i., p. 1418. McNeil, C.: Tuberculosis in Childhood, Edinburgh Medical Journal, 1912, vol. i., p. 324; Brit. Med. Jour., 1912, vol. ii., p. 677. Marchand: Discussion on Orsós' paper, q.v. Mauclaire: Tuberculosis of Large Intestine, Clinique, Paris, 1912, vol. vii. Mitchell, A. P.: Tuberculosis of Lymphatic Glands, ref. Stiles; and personal communications. Moore, Benj.: Pulmonary Tuberculosis, Brit. Med. Jour., 1912, vol. ii., p. 198. Most, H.: Channels of Infection, Berliner Klinische Wochenschrift, 1908, Nr. 8, S. 402. Martin, A. E.: Remissions and Recovery in Tuberculous Meningitis, Brain, London and New York, 1909, vol. xxxii., p. 209. Nägeli, O.: Frequency, Localisation, and Healing of Tuberculosis, Virchow's Archiv, 1900, Band clx., S. 426. Narins: Mitral Stenosis and Pulmonary Tuberculosis, New York Medical Journal, 1912, vol. xcvi., p. 590. Neufeld, Dold, and Lindemann: Centralblatt für Bakteriologie, Orig., 1912, Band lxv., H. 5-6. Orsós: Verhandlungen der Deutschen Pathologischen Gesellschaft, Jena, 1912, Band xv., S. 136. Orth, J.: Results of Tuberculosis of Blood-vessels in Kidneys, ibid., 1912, Band xv., S. 129. Poirier, &c.: The Lymphatics, translated by Leaf, 1903, Fig. 112, p. 291. Poncet, A., and Leriche, R.: Tuberculose Inflammatoire, Revue de Chirurgie, Paris, 1912, vol. xlv., p. 153. Poncet, A.: Journal de Médecine Interne, Paris, 1911, vol. xv., pp. 259, 289; Medical Press and Circular, 1912, N.S., vol. xciv., p. 325. Powell, Sir D.: Cardio-vascular System in Pulmonary Tuberculosis, THE LANCET, 1912, vol. ii., p. 1415. Preisich: ref. Internationales Centralblatt für die gesammte Tuberkulose-Forschung, 1913, Nr. 3, S. 140. Pritchard, E.: Tuberculosis in Childhood, Practitioner, 1913, vol. xc., p. 280. Rénon, Géraudel, and Richet: Hæmorrhagic Tuberculous Meningitis, Presse Médicale, Paris, 1912, vol. xix., p. 785. Révész, V.: Thorax Phthisicus, ref. Internationales Centralblatt für die gesammte Tuberkulose-Forschung, 1912, Nr. 2, S. 67. Ritter and Vehling: Tuberculosis in Childhood, Berliner Klinische Wochenschrift, 1909, S. 1924. Ritter, J.: Tuberkulose Statistik, Deutsche Medizinische Wochenschrift, 1912, Band xxxviii., S. 1793. Saisawa, K.: Pseudo-tuberculosis in Man, Zeitschrift für Hygiene, 1913, Band lxxiii., S. 353. Schaps, L.: Case of Tuberculous Meningitis, Zentralblatt für Kinderheilkunde, Leipzig, 1911, Band xvi., S. 407. Schiele, G. W.: Zeitschrift für Klinische Medizin, Band lxxvi., H. 5-6, S. 375, ref. Köhler. Schultze, W. H.: ref. Köhler. Sehlbach, P.: Ueber die Häufigkeit der Tuberkulose, Münchener Medizinische Wochenschrift, 1908, Band ii., S. 322. Sergent, E.: La Mediastinite Chronique dans ses Rapports avec la Tuberculose, Presse Médicale, Paris, 1912, vol. xx., p. 652. Serog, C.: Zür Disposition der Lungen für Tuberkulose, Berliner Klinische Wochenschrift, 1912, S. 2126. Shennan, T.: Tuberculosis in Childhood, Edinburgh Hospital Reports, 1900, p. 130; Tuberculosis of Lymphatic Glands, THE LANCET, 1909, vol. i., p. 315. Ssobolew, L. W.: The Narrow Neck in Tuberculous Individuals, ref. Centralblatt für Allgemeine Pathologie, 1913, Band xxiv., Nr. 2, S. 71. Steffenhagen, K.: Tuberculosis in Childhood, Tuberkulose Arbeiten aus dem K. Gesundheitsamte, 1912, H. xi., S. 52. Sobotta, E.: Ueber Tuberkulose, Schmidt's Jahrbücher, 1912, Band cccxvi., S. 364, 463, 549; 1913, Band cccxvii., S. 24. Stiles, H. G.: Tuberculosis in Childhood and the Milk-supply, Brit. Med. Jour., 1913, vol. ii., p. 370. Tuberculosis of Bones and Joints, Journal of the American Medical Association, 1912, vol. lviii., p. 527. Talbot, F. B.: Tuberculosis of Mesenteric Glands in Infants; its Effect upon Absorption, American Journal of Children's Diseases, Chicago, 1912, vol. iv., p. 49. Thomson, J.: Tuberculosis in Infancy and Childhood, edited by Kelynack, London, 1908. Trautmann, G.: Cervical Gland Tuberculosis in Relation to Tonsils and to Lungs, Münchener Medizinische Wochenschrift, 1913, Band i., S. 866. Ungermann, E.: Tuberkulose Arbeiten aus dem K. Gesundheitsamte, 1912, H. xii., S. 109. Waldschmidt, M.: Tuberculosis of Kidney, Berliner Klinische Wochenschrift, Band xliv., Nr. 37, S. 1832. Webb, G. B.: Studies in Tuberculosis, Johns Hopkins Hospital Bulletin, Baltimore, 1912, vol. xxiii., p. 231. Weber, A.: Danger to Man from Milk, &c., Tuberculose Arbeiten aus dem K. Gesundheitsamte, 1910, H. x., S. 1. Weber, A., and Steffenhagen, K.: What Becomes of Perisucht-infected Children; and What Changes are Undergone by Perisucht Bacilli on Prolonged Residence in the Human Tissues? Ibid., 1912, H. xi., S. 1. Weichselbaum, Deutsche Medizinische Wochenschrift, 1907, S. 1762. Weiss, M.: Biochemical Reasons for Special Disposition of Lungs to Tuberculosis, Wiener Klinische Wochenschrift, 1912, Band xxv., S. 697. Whipple: Johns Hopkins Hospital Bulletin, Baltimore, August, 1908. Wilke: Giant-cell Formation in Thyroid and Prostate, Virchow's Archiv, 1913, Band ccxi., S. 165. Williams, O. T., and Powell, O. Mildred: Influence of Unsaturated Fatty Acids on Growth of Tubercle Bacilli, Liverpool Medico-Chirurgical Journal, 1913, vol. xxxiii, p. 213.

Edinburgh.

THE WOMEN'S IMPERIAL HEALTH ASSOCIATION.—According to the fourth annual report of this association (1913) the chief feature of the year's work has been the encouragement given by the association to the establishment of schools for mothers. This has involved some curtailment of efforts in other directions, such as lectures and caravan tours. An entertainments committee has been formed to provide musical and dramatic entertainments at drawing-room "At Homes." Representatives of the association have been present at the conferences of several kindred organisations. The distribution of literature has been continued. The exhibit of model clothing for infants and children at the Children's Welfare Exhibition in January last excited so much interest that it has been sent on tour. Its purport is to show how money can be spent to the best advantage on clothes. The association now possesses three kinematograph machines, and has made several additions to its films. The Florence Nightingale Caravan made its summer tour through Kent in June, while the London Parks Caravan visited Tooting, Clapham, Streatham, Wandsworth, and Brockwell Commons, and Battersea Park. Considering the amount and variety of excellent social work done by the association it is regrettable to learn that there has been a considerable falling-off in the income of the association during the past 12 months.

# THE SIGNIFICANCE OF DIABETIC FAMILY HISTORY IN LIFE ASSURANCE.[1]

BY OTTO MAY, M.D. CANTAB., M.R.C.P. LOND.,
MEDICAL OFFICER TO THE PRUDENTIAL ASSURANCE COMPANY.

IT is a commonly accepted belief that diabetes is in many cases a "family disease"—i.e., one which is prone to occur in several members of certain families in greater proportion than would be expected if its distribution were uniform throughout the population. If this be so, it becomes a question how far, if at all, one or more deaths from diabetes in a family history should influence our recommendation on the proposed life. From the actuarial point of view the proper method of investigation would be the comparison of the mortality table from a very large number of such proponents with that from an equal number of "controls"—cases chosen at random. Strictly speaking, the actuary is not concerned with the question of the family nature of the disease; his inquiry is whether such a family history increases the mortality from all causes—diabetes, consumption, senile decay, &c., and the investigation just suggested would afford him this information. The present paper, however, is a much less ambitious affair; it represents merely an attempt to see how far a family history of diabetes may be held to signify an increased risk of the proponent's death from the same cause. While this limitation will impair its value to the actuary, I trust that it will not render it unacceptable to the physician.

During the decade from Jan. 1st, 1901, to Dec. 31st, 1910, the total death claims in the "Ordinary Branch" of the Prudential Assurance Company numbered 76,333. Of these, the deaths from diabetes numbered 1143, or 1·49 per cent.[2] The family histories of these 1143 cases showed a death from diabetes in 41—i.e., 3·6 per cent. A control investigation of 1143 other cases, picked at random from the same period, showed a "positive" family history only in 12 cases—i.e., 1·05 per cent. These figures must be taken as the *minimal* rather than the actual ones. No case was included unless the word "diabetes" or "diabetic" figured in the history sheet. A fair number contained causes of death, such as "gangrene of the legs," "carbuncle," &c., of which a considerable proportion were probably diabetic. These were, however, excluded. On the other hand, it is extremely improbable that diabetes would be wrongfully given as a cause; almost alone among diseases, the ultimate confirmation of the diagnosis by a simple chemical test makes a positive statement exceptionally reliable.

The following figures for the parents of the two sets of 1143 cases are interesting as showing the vagueness of the histories:—

| — | Parents living. | Parents died from some stated cause. | Parents dead, cause unknown, or senile decay. | Total. |
|---|---|---|---|---|
| Diabetic ... ... | 832 | 893 | 561 | 2286 |
| Control ... ... | 781 | 1066 | 439 | 2286 |

Among the 41 cases in which the history was "positive" there were two family histories of special interest, as follows:—

1. Two brothers (twins), aged 22 years, both unlicensed grocers, proposed for endowment assurance in October, 1901. Family history: Father, 64, healthy; mother, 63, healthy; two sisters living; one brother died from diabetes, aged 10 years. The proposals were accepted at tabular rates. Both brothers died from diabetes—one in January, 1909, aged 30; the other in September, 1910, aged 31.

2. Two brothers—one, aged 22, a carter, and the other, aged 17, a coachman—proposed for endowment assurance in 1902. Family history: Father, 52, healthy; mother, 48, healthy; three brothers living; seven sisters living; one brother died from diabetes, aged 11. The proposals were accepted at tabular rates. Both brothers died from diabetes—one in 1911, aged 26, and the other in 1912, aged 32.

*Age at death.*—Of the 1143 cases the family history, as mentioned above, was "positive" in 41, "negative" in 1102. Below I have arranged the ages at death of these two groups in decades for comparison and contrast:—

| Years of age at death. | Diabetic family history. | | No diabetic family history. | |
|---|---|---|---|---|
| | Number. | Per cent. | Number. | Per cent. |
| Under 20 ... ... | — | — | 3 | 0·26 |
| 21–30 ... ... ... | 8 | 19·5 | 74 | 6·71 |
| 31–40 ... ... ... | 14 | 34·1 | 155 | 14·07 |
| 41–50 ... ... ... | 5 | 12·2 | 196 | 17·80 |
| 51–60 ... ... ... | 5 | 12·2 | 333 | 30·25 |
| 61–70 ... ... ... | 7 | 17·1 | 251 | 22·80 |
| 71–80 ... ... ... | 2 | 4·9 | 84 | 7·61 |
| 81–90 ... ... ... | — | — | 6 | 0·50 |
| Total ... ... ... | 41 | 100 | 1102 | 100 |

Among the "positive" cases the percentage under 41 was 53·7, and among the "negative" cases it was 21.

The striking feature of this table is the large proportion (53·7 per cent.) of early deaths in the "positive" cases, in comparison with those (21 per cent.) in the "negative" ones. The probable explanation is that diabetes includes at least two different groups of cases: (1) A group in which the incidence is in middle or later life, the course comparatively mild, and the "family" factor absent; and (2) a group characterised by earlier incidence, more rapid termination, and a tendency to run in particular families. In the present series those with a negative history contain a preponderance of the former type, while those with a "positive" history include a large proportion of the latter type.

*Influence of sex.*—In the 41 cases with a "positive" history the affected member of the family and the average age of death of the corresponding proponents are shown in the annexed table:—

| | Number of cases. | Average age of proponents at death. |
|---|---|---|
| Father diabetic ... ... ... ... | 14 ..... | 39·4 |
| Brother ,, ... ... ... ... | 13 ..... | 38·5 |
| Mother ,, ... ... ... ... | 7 ..... | 54·0 |
| Sister ,, ... ... ... ... | 7 ..... | 50·0 |
| Total ... ... ... ... | 41 ..... | 43·4 |

The striking feature here is the apparently great difference in the age at death according as the affected relative was male or female. Of the 41 "positive" case, 36 were male and 5 female, as follows:—

| | Male. | Female. |
|---|---|---|
| Father diabetic ... ... ... ... ... | 13 ..... | 1 |
| Brother ,, ... ... ... ... ... | 11 ..... | 2 |
| Mother ,, ... ... ... ... ... | 6 ..... | 1 |
| Sister ,, ... ... ... ... ... | 6 ..... | 1 |
| Total ... ... ... ... ... | 36 ..... | 5 |

[1] Part of a paper read before the Life Assurance Medical Officers' Association on March 4th, 1914.

[2] The actual percentage is really higher, as 1143 represented the number of deaths from diabetes, while 76,333 was the number of policies, representing a smaller number of individuals.

Of the 36 males the average age at death was as follows:—

| | Number of cases. | Average age at death. |
|---|---|---|
| Father or brother diabetic ... ... | 24 | 38·3 |
| Mother or sister ,, ... ... | 12 | 49·3 |
| Total ... ... ... ... | 36 | 43·0 |

Of the 5 females the corresponding figures are:—

| | Number of cases. | Average age at death. |
|---|---|---|
| Father or brother diabetic ... ... | 3 | 43·6 |
| Mother or sister ,, ... ... | 2 | 68·0 |
| Total ... ... ... ... ... | 5 | 53·4 |

Without attempting to dogmatise on such comparatively slight data, one cannot help suspecting that the hereditary factor comes out more strongly in the male—that the death from diabetes of a father or brother is more ominous than that of a mother or sister, and that the male is more likely to suffer from "family" diabetes than the female. Unfortunately, the sex was not shown in every one of the 1143 cases investigated, so that one cannot say whether 36 to 5 represents an undue proportion of males among those with a diabetic family history. It is, however, interesting to see that, so far as they go, the Registrar-General's returns for 1911 bear out the relatively greater incidence of diabetes at younger ages in the male sex.

| | Total deaths from diabetes. | Deaths at 40 or under. | Percentage. |
|---|---|---|---|
| Male ... ... ... ... | 1936 | 462 | 23·8 |
| Female ... ... ... | 1917 | 400 | 20·8 |

The above analysis therefore suggests (1) that there is a form of "family diabetes" tending to occur at an earlier age, and proving fatal more rapidly than the ordinary "acquired" type of the disease; and (2) that this family diabetes is more likely to occur in the male than in the female.

I should like to take this opportunity of expressing my thanks to the Board of Directors of the Prudential Assurance Company for permitting me the use of the claims dealt with.

## THE PATHOLOGICAL CHANGES OF THE THYROID IN DISEASE.*

BY RUPERT FARRANT, F.R.C.S. ENG.,
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IN a publication on hyperthyroidism[1] it was shown, as was to be expected, that thyroid hyperplasia was not produced by thyroid feeding. In another paper[2] a hyperplasia was demonstrated in diseases such as infantile diarrhœa, measles, &c., and that it could be artificially induced in guinea-pigs by the injection of diphtheria toxin. Hale White[4] first pointed out if a large series of thyroids were examined they would be found to vary greatly. This was confirmed by Simpson,[5] who described thyroid changes in certain acute disease, and by Marine and Lenhart,[7] who examined a series of 73 from various conditions. No attempt has ever been made to separate the diseases according to their action on the thyroid.

The object of this paper is to point out those diseases and toxæmias that do, and those that do not, produce an alteration in the thyroid, to describe and demonstrate these changes, to compare them with those seen in goitre, and to note when they become associated with signs of thyroid excess.

* A paper read before the Pathological Section of the Royal Society of Medicine on Feb. 17th, 1914.

The work is based on some 700 thyroids obtained from post-mortem examinations during the last five years, together with some from guinea-pigs after inoculation. There is no wish to be dogmatic from the appearance of single sections, and doubtful ones have been as far as possible eliminated. It is proposed to take the micro-organisms in alphabetical order.

*Bacilli.*—B. aerogenes capsulatus: Nothing can be said with certainty from the thyroids obtained from 2 cases of spreading traumatic gangrene taken 36 hours and 4 days after infection. B. anthracis: The thyroids obtained from 5 guinea-pigs after inoculation showed a complete hyperplasia with intervesicular hæmorrhage. The change took place within 2 days. B. coli communis: 3 guinea-pigs received 2 intraperitoneal injections 16 days and 24 hours before death—total colloid absorption, marked cell hyperplasia, and intervesicular hæmorrhage were found. B. coliformis: Cultures of this organism, first described by McCarrison,[6] were obtained from a patient with endemic goitre. The organism merely decolourises sucrose-litmus and produces no indol. The induction of a coliform septicæmia produces total colloid absorption and cell hyperplasia. B. diphtheriæ: The thyroids from 8 cases show stages of a complete hyperplasia and will be described in full later. B. dysenteriæ: Emulsions of Shiga's and Flexner's organisms were injected into 6 guinea-pigs; an acute hyperplasia was produced. From 9 cases of asylum dysentery it was found that colloid absorption occurred after the fifth day, and that later a complete hyperplasia was produced. B. Gaertner: An active hyperplasia was found in 12 cases of infantile diarrhœa, the degree of which varied with the duration of the disease. B. mallei: 3 guinea-pigs were inoculated with glanders and a complete hyperplasia was found in 24 hours. B. tetani: 3 guinea-pigs were inoculated with tetanus and an acute hyperplasia was found; this in borne out by a thyroid from a child 12 days after an injury and 4 days after tetanic convulsions. B. tuberculosis: The thyroid changes have been gauged from 48 cases; the acute miliary causes a complete hyperplasia, the chronic a colloid hyperplasia. B. typhosus: Practically no change was found in 2 cases, 4 weeks and 9 weeks after infection.

*Cocci.*—Gonococcus: No change was found in 2 cases, one of which died from an injury, the other from lobar pneumonia. Meningococcus: A slight colloid hyperplasia was found in 2 cases that died on the twelfth and forty-second day respectively. Micrococcus catarrhalis: An acute hyperplasia was produced in 3 guinea-pigs by intraperitoneal injections. Micrococcus melitensis: The thyroids varied from a complete to a colloid hyperplasia in 12 Maltese goats whose serum reactions were positive. Pneumococcus: The thyroids from 39 cases of pneumonia varied according to the type and cause of infection. Lobar pneumonia produces no change, whilst broncho-pneumonia may cause a complete hyperplasia. Staphylococcus: In 8 cases of septicæmia due to pyogenes aureus or albus no thyroid reaction was present. Streptococcus: The thyroids from 41 cases of streptococcic septicæmia and other streptococcic infections show no change, with the exception of those from cases of scarlet and rheumatic fevers; the changes in these diseases may be due to other micro-organisms. Acute surgical infections are found to have no effect on the thyroid.

*Protozoa.*—Coccidiosis: No change was found in

rabbits affected with coccidium. Spirochæta pallida: The thyroids from 19 cases of general paralysis of the insane and other late syphilitic affections show some intervesicular fibrosis. Malaria (blackwater fever): The thyroid from 1 case of five days' duration shows granulation and partial absorption of the colloid.

*Streptothrix.*—Actinomycosis: Thyroids from two cases, one of eight and a half months' and one of four months' duration, show a colloid hyperplasia.

*Diseases due to unknown organisms.*—Measles: The thyroids from 8 cases show a complete hyperplasia. Acute anterior poliomyelitis: The thyroid from 1 case shows a mild chronic hyperplasia. Polyserositis: A thyroid from 1 case of polyserositis shows no change. Small-pox: Changes have been described by other observers. Whooping-cough: Extreme hyperplasia was found in 3.

*Malignant disease.*—The thyroids from 31 cases of sarcoma and carcinoma show no reaction except those in which death occurred from some complication capable of producing a thyroid change.

*Gland diseases.*—Addison's disease: The thyroids from cases of Addison's disease were found to vary according to the infection that produced the disease. In cases due to tuberculosis they vary with the extent of the tuberculosis situated elsewhere. The absence of suprarenal secretion appears to produce no thyroid change. Cirrhosis of the liver: The thyroids from 6 cases show cirrhosis of the thyroid with complete hyperplasia. Diabetes: In 3 cases no thyroid change was found. Jaundice: This disease produces no thyroid change. Diseases of the kidney: Renal disorders, either acute or chronic, are not necessarily associated with thyroid changes, though these may occur.

*Blood diseases.*—No thyroid change was found in a case of lymphadenoma, nor in a case of lymphatic leukæmia, but a colloid hyperplasia was found in pernicious anæmia.

*Artificial toxæmias.*—Injection of 0·0000025 grm. of ricin and 0·000025 grm. of abrin into six guinea-pigs causes an acute hyperplasia; a similar hyperplasia has been produced in some 50 guinea-pigs by injection of diphtheria toxin.

From these observations it is found that the thyroid changes are dependent on the amount, virulence, and duration of the toxæmia. The diseases and toxæmias may be divided into three groups; in the first are those that produce no effect on the thyroid, in the second those that produce a colloid hyperplasia, and in the third those that cause a complete or acute hyperplasia.

*Group 1. Diseases that Produce no Effect.*

Bacilli: Typhoid.
Cocci: Gonococcus (?), pneumococcus, staphylococcus aureus, staphylococcus albus, streptococcus equinus, streptococcus fæcalis, streptococcus puerperalis, streptococcus rheumaticus, acute surgical.
Protozoa: Coccidiosis.
Diseases due to unknown micro-organisms: Polyserositis, carcinoma, sarcoma.
Gland diseases: Addison's disease, diabetes, jaundice.
Blood diseases: Lymphadenoma, lymphatic leukæmia.

*Group 2. Diseases that Induce a Chronic or Colloid Hyperplasia.*

Bacilli: Coliform (chronic in man), tuberculosis (chronic).
Cocci: Micrococcus melitensis (goats), meningococcus (slight).
Protozoa: Syphilis (tertiary).
Streptothrix: Actinomycosis.
Diseases due to unknown micro-organisms: Acute anterior poliomyelitis, rheumatic fever, scarlet fever.
Gland diseases: Chronic nephritis.
Blood diseases: Pernicious anæmia.

*Group 3. Diseases that Produce a Complete or Acute Hyperplasia.*

Bacilli: Aerogenes capsulatus (?), anthrax, coliform (acute guinea-pigs), diphtheria (man), diphtheria toxin (horses, guinea-pigs), dysentery (asylum), dysentery (Flexner), dysentery (Shiga), Gaertner, mallei, tetanus, tuberculosis (acute).
Cocci: Micrococcus catarrhalis.
Protozoa: Syphilis (secondary), malaria.
Diseases due to unknown micro-organisms: Measles, broncho-pneumonia, small-pox, whooping-cough.
Gland diseases: Chronic nephritis, cirrhosis of liver.
Artificial toxæmias: Abrin, ricin, diphtheria toxin.

From tuberculosis one concludes that the toxæmias of Group 3, when mild in character, may produce a colloid instead of a complete hyperplasia; but no alteration in Group 1 can enable them to have the effect of either Group 2 or 3.

Diphtheria may be taken as an example of the acute toxæmias that act on the thyroid. The stages of the production of acute hyperplasia were illustrated by four thyroids taken from cases dead on the fourth, seventh, seventh, and twelfth days. The colloid becomes granular and then finally disappears, the walls of the vesicles become infolded, the outline indistinguishable, and the cells columnar in shape. The thyroids of the acute infections can be arranged in order; the degree of hyperplasia corresponds to the duration of the disease.

The involution of acute hyperplasia can be seen from specimens obtained after injection of sublethal doses of toxin or micro-organisms into guinea-pigs and of diphtheria toxin into horses. The vesicles are reformed by the direct transformation of the cells into colloid; they are small at first, but as fresh colloid is formed they enlarge and the cells become flattened; extravasated blood is transformed into fibrous tissue. At the termination of the process there is destruction of tissue with fibrosis. The fibrosis is the most marked feature after an acute hyperplasia, but excessive colloid formation after complete hyperplasia.

*Production of colloid hyperplasia.*—A complete thyroid circle can be traced over a period of years from cases of tuberculosis. Six thyroids were demonstrated on one slide and the contrast shown of the complete hyperplasia produced by miliary tuberculosis and of the colloid hyperplasia by the chronic. Three stages may be described in colloid hyperplasia. In the first the vesicles are small in size and the colloid coarsely granular with cell proliferation; in the second the vesicles are of unequal size and packed with colloid; the cell proliferation is squeezed up between them; finally the thyroid becomes cirrhotic with deficiency of thyroid tissue. Colloid hyperplasia is found in three separate conditions: during the involution after an acute toxæmia, during the production and the involution after chronic toxæmia.

*Comparison with goitre.*—There are two main differences between the hyperplasias of the toxæmias and those of goitre: one the hyperthyroidism of exophthalmic goitre when compared to the complete hyperplasias of the toxæmias; the other the alteration in size seen in endemic goitre as compared to that of the chronic toxæmias.

*Repeated and double toxæmias.*—Repeated injections of diphtheria toxin lead not only to the production of thyroid hyperplasia, but also to the formation of antitoxin. From observations on 15 horses it was found that the hyperplasia decreased as the antitoxic value of the serum increased. (A full account has already appeared in THE LANCET.) This can be applied to the extent of

saying that it is probable that the toxæmias that are counteracted by the formation of antitoxin only produce a thyroid hyperplasia when antitoxin is absent or deficient. Guinea-pigs were inoculated with a second toxæmia before recovery was complete from the first; it was found that there was an increase in the hæmorrhagic hyperplasia. The supervention of miliary tuberculosis on chronic is an instance of an acute toxæmia acting on a chronic; the extreme hyperplasia produced in such a case was shown; the case developed exophthalmos before death. Cirrhosis of the liver is an example of a subacute toxæmia that develops on a chronic at the onset of ascites; exophthalmos was present in 10 out of 12 cases. (A photograph of bilateral exophthalmos in a case of cirrhosis was shown, also the complete thyroid hyperplasia.) Barker[8] and Levison[9] have noted the occurrence of exophthalmos in cases of interstitial nephritis. These examples of the occurrence of exophthalmos are of importance in that they serve to bridge over the gap between the thyroid changes and hyperthyroidism of the toxæmias and those of goitre. These considerations enable one to trace the effect of the diseases on the thyroid from birth upwards, and lead to the prevention, production, and cure of certain thyroid conditions.

*Bibliography.*—1. Rupert Farrant: Brit. Med. Jour., Nov. 22nd, 1913. 2. Idem: Transactions of the Royal Society of Medicine, October, 1912. 3. Idem: THE LANCET, Dec. 27th, 1913. 4. Hale White: Transactions of the Royal Medical and Chirurgical Society, 1888, vol. lxxi., p. 181. 5. Simpson: Scottish Medical and Chirurgical Journal, Edinburgh and London. 6. McCarrison: THE LANCET, vol. i., p. 357, 1912. 7. Marine and Lenhart: Archives of Internal Medicine, vol. iv., p. 440-93, 1909. 8. Barker: American Journal of Medical Sciences, p. 469, October, 1909. 9. Levison: New York Medical Journal, p. 1021, 1911.

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## CASE OF ACUTE SUPPURATIVE APPENDICITIS COMPLICATED BY GANGRENE OF THE ILEUM.

BY BASIL HUGHES, F.R.C.S. ENG.

GANGRENE of the ileum complicating acute appendicitis is rare. This is the first case it has been my lot to encounter from a large number of acute inflammatory conditions of the appendix, and I cannot recollect or find any recorded cases other than that described by Dr. Joseph Wiener, of New York, in the *Annals of Surgery* for December, 1912. The following is my case.

The patient, a married woman aged 42, was suddenly seized with acute abdominal pain while taking a holiday in October last. She had never experienced a similar attack, and had up to the onset of the pain enjoyed good health. She went to bed, her bowels moved normally, and with fomentations and rest the pain, which was now localised to the right iliac fossa, subsided sufficiently to allow of her return home. She vomited at the onset and ascribed her condition to some food she had taken. On returning home, five days after the onset, she was seen by Mr. R. P. Woodroofe, of Eccleshill, who diagnosed a condition of acute appendicitis. Her temperature was then 101° F. and pulse-rate 94, her tongue was furred, and there was tenderness over McBurney's point, with some rigidity of the muscles covering the lower right quadrant of the anterior abdominal wall.

On the following day her temperature rose to 102°, the pulse-rate was 110, and in the afternoon I saw her in consultation with Mr. Woodroofe. There was now a definite tender swelling in the right iliac fossa; the rigidity was not very marked as the patient had had opium. The bowels were moving, the motions being very relaxed and containing mucus. There was tenderness on pressure in the right loin. The tongue was furred, and the patient looked sallow and toxic. A vaginal examination revealed some indefinite fulness high up in the right fornix. I advised immediate operation, but this was refused. Her condition became more grave, and I was called in to see her again 48 hours later. The pain and rigidity had now extended higher up on the right side, and the tenderness to pressure in the right loin was more pronounced. The pulse-rate had risen to 140 and was thready in quality. The tongue was dry and more furred. The abdomen was now distended, the tenderness was more general, and vomiting had commenced. The patient presented an abdominal facies and looked very ill.

Operation was consented to and was done forthwith. The tenderness in the loin suggested a retrocæcal position of the appendix, and under gas and ether anæsthesia the abdomen was opened through the right rectus muscle by an incision starting as high up as the umbilicus and extending downwards for about 4½ inches. A small quantity of seropurulent and inoffensive fluid escaped, and on further investigation the cæcum was quite fixed, very injected, and was bulging forwards very prominently, fluctuation being obtained across it. On the ileum about 4 inches from the ileocæcal junction there were two grey patches, one about the size of a large pea, the other slightly smaller. While examining these patches one of them gave way, gas and a small quantity of small intestinal contents escaping. This was rapidly mopped up, and both these patches were buried with Lembert sutures.

The small intestine was now packed off and the cæcum isolated. On its anterior surface was a gangrenous patch the size of a small pea. While investigating the cæcum a large retrocæcal abscess, containing very foul-smelling pus and gas, was opened. The appendix, which was gangrenous, was adherent to the posterior cæcal wall and was removed. Profiting by two somewhat similar cases of retrocæcal abscess I further explored this space and came upon a second abscess cavity which was extending around the right kidney. Being satisfied that this was the limit of spread of the pus, a large rubber drainage-tube was inserted high up through both abscess cavities; the second and smaller tube was inserted just down to the buried patches on the ileum. No lumbar drain was used. The gangrenous patch on the cæcum was buried with Lembert sutures, and the abdominal wall closed with through-and-through sutures of stout silkworm gut. The patient was given rectal salines and sips of water by mouth.

All went well for seven days, at which period the patient was taking milk, beef-jelly, and soups. After an enema on the seventh day some fæcal material was discharged from the tube draining the retrocæcal space. The other tube had been taken out. This small fæcal fistula persisted and was present when the patient went home five weeks after the operation, though most of the fæcal current was going the right way.

This case is of interest as it tends to support Dr. Wiener's theory that ileal gangrene in these cases is embolic. In my case the ileum did not enter into the formation of the abscess wall as it did in his; the abscess was entirely retrocæcal and the pus was pent up under considerable pressure. There was only a small

quantity of inoffensive sero-purulent fluid around the portion of the ileum that was gangrenous. There was no further trouble with the small intestine after these two patches had been turned in. The buried patch on the cæcum evidently gave way, or perchance the cæcum perforated in another place.

This case, like two somewhat similar preceding cases of retrocæcal abscess, shows how undesirable it is to be content with stopping short after the pus is reached. Retrocæcal abscesses have in my experience shown themselves to be often multilocular, and the failure to recognise this may explain how some of these cases progress to perinephritic and subdiaphragmatic abscess formation after what has apparently seemed a satisfactory operation. In these three cases of retrocæcal abscess the patients had diarrhœa with the passage of mucus in the stools. This may be that the cæcum itself is acutely inflamed through being adherent to a gangrenous appendix—in other words, a true condition of acute typhlitis existed.

Bradford.

# Medical Societies.

## ROYAL SOCIETY OF MEDICINE.

### SECTION OF MEDICINE.

*Paroxysmal Tachycardia in a Child.—Secondary or Symptomatic Leukæmia.*

A MEETING of this section was held on Feb. 24th, Dr. PERCY KIDD, the President, being in the chair.

Dr. ROBERT HUTCHISON and Dr. JOHN PARKINSON communicated a paper on a case of Paroxysmal Tachycardia in a child aged 2¾ years. Dr. Hutchison said that a case of this condition had not hitherto been described in so young a child. When admitted into hospital he looked healthy, but the heart was rapid, the neck was pulsating, and a pulsating liver was felt. The symptoms had been present for ten days. There was nothing of significance in either the family or the personal history. Two days later the child appeared quite normal and the liver had receded. He knew of no other cardiac condition which could be accompanied by this sudden cessation of symptoms. Three days later, after sitting up in bed, the patient suddenly developed another attack. A similar clinical picture reappeared, the pulse-rate being 245 per minute. This attack lasted 20 hours and ceased as abruptly as the former. During the next 10 days the child was perfectly well, the pulse-rate being 64 to 80 per minute, and the tracings showing merely a sinus arrhythmia. He was then discharged from hospital. From this time (June 26th, 1913) until Sept. 22nd, 1913, he remained well. On that day a third attack began, which lasted for 12 hours, the pulse-rate being 215 per minute. A fourth attack occurred on Oct. 3rd, the pulse-rate on this occasion being 213. The child appeared cheerful and no abnormal signs were seen beyond the rapid pulsation in the neck and over the præcordia. The liver was not enlarged. This attack lasted 48 hours. There had been no relapse since. The Wassermann reaction was negative. Dr. Parkinson demonstrated the cardiograms which had been taken and which bore out the diagnosis.—Dr. G. A. SUTHERLAND said that the chief interest lay in what would happen to the child in later years. He supposed that in this case, apart from the tachycardia, there was no other heart disease, and he thought it important that a distinction should be drawn between cases of paroxysmal tachycardia accompanying diseased conditions of the heart and those with a normal heart. Before paroxysmal tachycardia had been investigated by recent methods it had been ascribed to excessive use of tobacco, alcohol, or tea, factors which could not play any part in this case. He showed three cardiograms of the condition, one of which was taken from a child aged 9. He considered that the auricle contracted while the ventricle was still in a state of contraction, this explaining the large venous wave demonstrable in the tracings, and also the large pulsating liver. He had observed all the symptoms of cardiac failure result from a disturbance of rhythm, the musculature of the heart being apparently normal. In that case, one of a child, he gave 45 minims of digitalis every day for 19 days; the heart slowed down and had acted well since. His object had been to produce some degree of heart-block and poisoning of the ventricle, so that the latter could not react to the unduly frequent auricular stimuli.—Dr. ALEXANDER MORISON did not think that they were in a position to say that the frequency originated in the auricle, for if so digitalis would influence it, as it did in auricular fibrillation, which Cushing had shown was not the case. His own view was that it originated in the ventricle.—The PRESIDENT recorded a case in a boy, aged 4½ years, who had suffered from attacks of blueness after contracting measles at the age of 2. They recurred about once a month and subsequently attacks of vomiting ensued. In one of these a very rapid pulse had been noticed, with enlargement of the heart and liver, and the condition had suddenly returned to normal. In a later attack the pulse-rate was 240 and the liver enlarged, but the child was perfectly happy and comfortable. The pulse-rate was not influenced by digitalis. Vomiting occurred and caused a slowing of pulse. At one time there had been a rapid pulse-rate for six months without subjective symptoms. He then became worse, with œdema, dyspnœa, and cyanosis, and died suddenly. Post mortem dilatation of the whole heart was found, with slight hypertrophy of the right ventricle and left auricle, but no valve lesion. The case occurred before the advent of the new cardiographic methods and before the importance of the microscopical examination of the neuro-muscular bundle and nodes was recognised.

Dr. G. R. WARD read a paper on Secondary or Symptomatic Leukæmia.

### SECTION OF DERMATOLOGY.

*Exhibition of Cases.*

A MEETING of this section was held on Feb. 19th, Dr. J. H. STOWERS, Vice-President, being in the chair.

The following cases were exhibited:—

Dr. E. G. GRAHAM LITTLE: 1. A case of Extensive Congenital Milium on the face, neck, and body of a baby aged 4 months. 2. A woman who presented large and small Patches of Atrophic Skin on the neck and shoulders; she had been seen by Sir Jonathan Hutchinson and by Dr. J. F. Payne 15 years ago, when the condition was designated "lardaceous disease of the skin" by the former and "papyrus skin" by the latter. 3. A little girl with Favus of the Glabrous Skin of the Neck. A perfect favus "cup" had been present and cultures showed the fungus to be the achorion quinckeanum. There were no mice in the patient's house, but two cats and seven canaries were kept, the father being a bird fancier. The scalp was not affected.—Dr. J. H. SEQUEIRA, in reply to the CHAIRMAN, said he saw very few cases of favus now at the London Hospital.—Dr. J. M. H. MACLEOD had had a case, diagnosed clinically as ringworm, in which fungus was found in abundance in the feathers of a canary from which the infection was derived, and another recent case which showed extremely small pin's head sized scutula on glabrous skin.

Mr. J. E. R. MACDONAGH: A man with a "ringed eruption" on the penis occurring in the circumference of the scar of a sore which he had contracted 19 years previously. Four weekly intravenous injections of salvarsan with intramuscular injections of mercury and iodide of potassium had been given, but had had little effect upon the lesions. The Wassermann test had given a doubtful positive reaction. The chronicity of the lesions, the limited localisation with no ascertainable symptoms of a generalised infection, the weak positive Wassermann's reaction, and the failure of treatment to cure the lesions suggested to the exhibitor that the condition was an aberrant form of syphilis in which only the spores had been able to develop asexually.—Dr. A. WHITFIELD asked if the tuberculin reaction had been tested or a guinea-pig inoculated.—Dr. H. C. G. SEMON and Mr. HALDIN D. DAVIS suggested that the "luetin reaction" might be tried.—Dr. A. M. H. GRAY said the luetin reaction occurred in every case that had had syphilis, and it would not help in the present instance.

Dr. H. G. ADAMSON demonstrated lantern slides of four cases of the Epithelioma Adenoides Cysticum of Brooke. There were seven cases in one family, four of which he had seen. In their clinical distribution and histological characters the growths resembled rodent ulcer. Brooke's cases had now been shown to be tricho-epitheliomata. The exhibitor regarded the tumours as embryonic hair follicles which were stimulated to growth at puberty and rodent ulcers as due to a similar process occurring later in life, and said a striking feature of these cases was that two of the patients developed large growths on the scalp which had been regarded as endotheliomata, but which microscopical examination showed to be tricho-epithelioma. Dr. A. EDDOWES and Dr. MACLEOD discussed the cases.—Dr. SEQUEIRA drew attention to the fact that Sir Frederic Eve was the first to propound the hair follicle origin of rodent ulcer, and pointed out that the latter was by no means a growth occurring only in old age, some cases beginning in the second decennium.

Dr. ADAMSON: A case of Adult Urticaria Pigmentosa in a woman, aged 44, of five years' duration, whose trunk and limbs were covered with freckle-like lesions associated with an urticarial element.—Dr. A. WHITFIELD thought the disease was one *sui generis;* he had observed a case in which a biopsy showed nothing characteristic.

Dr. W. T. FREEMAN exhibited an Extensive Bromide Eruption in a young child.

Dr. J. A. NIXON brought forward a case for diagnosis. The patient was a middle-aged woman who presented large discoloured patches on the back, with a cicatricial patch, resembling a cheloid, in the centre of the affected area; there was also a second patch of affected skin above the sacrum. He regarded the case as one of sclerodermia. The Wassermann reaction was negative and sections showed only fibrous tissue.—Dr. R. A. BOLAM suggested the possibility of an artefact, with which suggestion Dr. ADAMSON agreed.—Dr. E. STAINER regarded it as a typical case of sclerodermia, and the CHAIRMAN was also in favour of this diagnosis.—Dr. EDDOWES said that sclerodermia was never typical, and he had seen patches showing different characters in the same patient.—Dr. F. PARKES WEBER thought it most unlikely that this was a self-produced eruption.

Dr. NIXON: A case of Acanthosis Nigricans in a woman aged 39. She had noticed the appearance of warty growths all over her body last summer and more recently discolouration and thickening of the skin in the flexures. There was no evidence of visceral disease and all the functions were normal. Suprarenal, pituitary, and thyroid extract had been tried.—Dr. S. E. DORE asked if radiograms of the internal organs had been obtained, as he had observed a case in which skiagrams had revealed extensive malignant disease of the lung.

Dr. G. PERNET exhibited a woman, aged 56, suffering from an untreated rodent ulcer of the face of four years' duration.

Dr. G. NORMAN MEACHEN: A girl, aged 10, with an extensive Hairy Mole, chiefly affecting the "bathing-drawers" area, which was said to have begun at the age of 5. There were also three large lipomatous swellings situated upon the mole, and atrophy of the thigh muscles on the right side. There was a distinct history of maternal impression.—The CHAIRMAN had seen two cases of a similar character recently.

Dr. MACLEOD: A girl, aged 6, with Bald Patches on the Scalp, of two years' duration, following severe impetigo. The patches were dotted over with small papillomatous outgrowths. There was no history of favus or ringworm.—Dr. ADAMSON thought the large central and the small satellite patches strongly suggested a post-kerionic alopecia.—Dr. JAMES GALLOWAY thought the small papillomata on the bald areas were merely excesses of fibrous tissue.—Dr. MACLEOD, in reply, said the hair generally grew normally after kerion; and this was also Dr. SEQUEIRA's experience.

Dr. MACLEOD: A case of Grouped Comedones in a girl, aged 2 years. The lesions consisted of grouped comedones, acne pustules, white fibrous scars, and minute fibrous thickenings on the back, shoulders, chest, and face, and were probably the result of camphorated oil and turpentine which had been rubbed on the skin by the mother for bronchitis. A comedo was examined for acne bacilli with negative results.

Mr. RUSSELL F. WILKINSON (introduced by Mr. MACDONAGH): A case of Dermatitis Herpetiformis of 13 months' duration; the whole body was covered with a generalised herpetiform eruption. The patient denied having had syphilis, but the Wassermann reaction was tested twice and was strongly positive on each occasion. Two injections of salvarsan had been given and had resulted in great improvement of the eruption. The blood count suggested a pseudo-leukæmic state.—Dr. SEMON had observed an identical case which had been under treatment for psoriasis for many years and subsequently developed dermatitis herpetiformis. There was no specific history. The blood count showed 27 per cent. of eosinophiles comparing with 22 per cent. in the present case.

Dr. KNOWSLEY SIBLEY: A woman, aged 42, suffering from Lupus Erythematosus affecting the face, mouth, and scalp. The lesions inside the mouth began at the same time as those on the scalp; the mucous membrane showed scarring and ulceration, and there was a peculiar sieve-like condition of the upper lip.—Dr. SEQUEIRA said that one of his clinical assistants had found lesions in the mouth in 28 per cent. of cases of lupus erythematosus.

Dr. C. DUDLEY CORBETT: A girl, aged 15, with Hypertrophic Lichen Planus on the right arm of five years' duration and linear in distribution; it had been much improved by one-third of a pastille dose of X rays.—Dr. MACLEOD said the patient was young for lichen planus, and thought the condition might be nævoid.

Dr. H. MACCORMAC: A case of Polycythæmia Rubra in a man aged 64. The condition began six years ago, and the rubicund condition of his face had since become more marked. The small blood-vessels could be very distinctly seen on the face and the skin was of a reddish-blue colour which was also well marked on the mucous membranes. Apart from a feeling of lassitude his general condition was fairly good.

Dr. SEQUEIRA brought forward a case of Multiple Idiopathic Pigmented Sarcoma which he had shown at the International Congress. The case was shown in order to illustrate the disappearance of the infiltrating growth which had taken place as the result of X ray treatment.

## SECTIONS OF ELECTRO-THERAPEUTICS AND NEUROLOGY.

### *Use of Electrical Methods and the Value of Radiography in the Diagnosis and Treatment of Neurological Conditions.*

A JOINT meeting of these sections was held on Feb. 20th, under the presidency of Mr. C. THURSTAN HOLLAND, when a discussion on the above subjects took place.

Dr. H. LEWIS JONES said the time had come for a review of the methods of using electricity, both for testing and for treatment, in cases of paralysis. In the treatment of paralysed muscles the current used must be a rhythmically varying one, with about 15 periods of action and of rest per minute. Also the current should be used for longer periods and of greater strengths than hitherto. Hence there was an advantage in using condenser discharges instead of induction coil currents, because they were more agreeable to the patient. Simple tetanisation of muscles tended rather to fatigue and to injure than to develop them. There were now several rhythmic interrupters on the market, two of which he demonstrated in action. With them the current grew from zero to maximum, and then faded again to zero; then followed an interval, and the cycle was repeated. The principles of ionic medication had taught one how to make large currents tolerable to the patient by a change in the form of the electrode. Treatments of infantile paralysis of half an hour's duration, repeated twice a day, were found practicable without any fatigue or exhaustion. The use of condenser discharges to take the place of the induction coil had been adopted by only a few observers; it was less painful than induction currents, and was more accurate for measurement. For six months he had used condenser discharges for muscle stimulation, to the exclusion of induction coils. The use of condensers for testing he had described in a previous paper. For treatment, discharges must be rapid enough to cause tetanic contractions in the muscles. This was ensured by employing a mechanically operated commutator, which charged the condenser from the source, and discharged it through the patient. In cases of nerve injury or nerve lesion ionic medication should be employed. He had seen very good results from it in facial paralysis.

Dr. E. P. CUMBERBATCH read a contribution on Muscle Testing by the Condenser Discharge. He pointed out that the character of the response to the galvanic current varied in the case of different muscles; and a cold muscle contracted more slowly than a warm one. There was need of a method which would give a long range of stimulus, varying in duration from the shortest to which a muscle would contract, to the longest necessary to evoke response. This was furnished by condensers of varying capacity, and their use caused very little pain. The method, which he described in detail, enabled one to give an accurate prognosis in any given case, and he gave a number of instances.

Mr. W. HAMPSON spoke of gratifying results he obtained at the Queen's Hospital for Children in cases of infantile paralysis from the method of rhythmical stimulation.

Dr. REGINALD MORTON spoke in support of the value of slowly varying currents, and reminded members of Dr. Herschell's efforts of ten years ago, and his own device of a low periodicity three-phase current which he used with advantage for intestinal conditions. It had always appeared to him when using very large current densities for ionisation that a tetanic condition of tissues was being produced, which arrested the circulation to some extent and caused some spasm in the arterioles. So he thought ionisation would be better if one could let the current be regulated by an interrupter.

Dr. E. G. FEARNSIDES and Mr. S. G. SCOTT communicated a paper, profusely illustrated, on Diseases of the Pituitary Gland and their Effect on the Shape of the Sella Turcica.

Dr. N. S. FINZI emphasised the great importance in these cases of getting the rays through the fossa exactly lateral, and described his method of ensuring this.

The subject was also discussed by Mr. E. S. WORRALL and Dr. F. PARKES WEBER, and Dr. FEARNSIDES and Mr. SCOTT replied.

## LIVERPOOL MEDICAL INSTITUTION.

*Dislocation of the Shoulder.—Lymphatic Leukæmia.—Disease of the Pylorus.*

A MEETING of this society was held on Feb. 19th, Dr. E. W. HOPE, the President, being in the chair.

Mr. R. E. KELLY read a note on a Case of Fracture-dislocation of the Shoulder. The humerus was in three pieces; the head had become attached to the side of the shaft. Mr. Kelly freed it from the shaft and planted it in its proper position. It became united and gave an excellent result.—Dr. N. G. CHAVASSE reported a case of fracture-dislocation successfully operated on by Mr. Douglas-Crawford.—Mr. T. C. LITLER JONES related cases in which it had been necessary to remove the broken portion of the bone from the shoulder-joint.—Mr. G. P. NEWBOLT referred to the value of pulling the arm right above the shoulder in the reduction of the dislocation.—The PRESIDENT, Professor RUSHTON PARKER, and Mr. F. C. LARKIN also joined in the discussion.—Mr. KELLY, in reply, discussed the regeneration of bone.

Dr. N. PERCY MARSH gave a short paper on Three Cases of Lymphatic Leukæmia in Children. The respective ages of the children were 11, 4¼, and 3 years. The three children died within a few days or weeks of the onset of the symptoms. In his experience, he said, arsenic and blood serum were useless. In concluding, he dealt with the etiology and pathology of the condition.—Dr. T. R. BRADSHAW related a case and upheld the view that the essential pathology was that of a neoplasm.—Dr. H. R. HURTER referred to a case of multiple myeloma which ended in a lymphatic leukæmia, and suggested that such a sequence of events threw some light on the pathology of acute lymphatic leukæmia.—Professor R. J. M. BUCHANAN stated that the blood picture of a myelogenous leukæmia tended to show a change towards the lymphatic type as the disease became more acute or towards the end of the life of the patient. He also pointed out that in a relapse subsequent to treatment by X rays the blood was more lymphatic in character.

Mr. NEWBOLT read a short paper on Some Cases of Disease Affecting the Pylorus and Necessitating Gastro-enterostomy. He related a number of interesting cases illustrating the various points raised in the paper. Among other matters discussed was the difficulty of diagnosing the nature of certain growths even when exposed by the surgeon, and the importance of having a pathological report at the time of the first operation. He referred to the question of the value of pylorectomy, which in his opinion, when undertaken for malignant disease, was almost always disastrous. He held a more favourable view of operations for palpable tumour of the stomach than was usual 10 or 15 years ago. He also related a case in which the hernia of the small intestine had taken place in the lesser omentum.—Mr. LARKIN, Professor RUSHTON PARKER, Mr. K. W. MONSARRATT, Dr. NATHAN RAW, and Mr. LITTLER JONES discussed the paper.—Mr. NEWBOLT replied.

*Exhibition of Cases and Specimens.—Dysentery due to Bacillus Y.*

A pathological meeting was held on Feb. 26th, Dr. W. B. WARRINGTON, Vice-President, being in the chair.

The following cases were shown:—

Mr. MONSARRAT: (1) An Ulcer of the Pylorus which macroscopically appeared malignant but microscopically proved to be innocent; (2) two specimens of Ulcer of the Lesser Curvature of the Stomach, in one case caused by burns; (3) a Carcinoma of the Ileum; (4) a Nasal Polyp of large size; and (5) a Carcinoma of the Thyroid Gland.

Mr. NEWBOLT: (1) A Small Hard Prostate; (2) a Carcinomatous Cyst of the Breast in a woman whose other breast had been removed 30 years previously for carcinoma; (3) a Malignant Sigmoid; and (4) a Mass of Axillary Glands removed with portions of the Axillary Artery and Vein.

Professor ERNEST E. GLYNN: (1) A specimen of Acute Fibrous Pericarditis in a horse; and (2) (with Dr. J. H. ABRAM) a Liver from a man aged 27, showing cirrhosis.

Mr. F. A. G. JEANS and Mr. C. T. HOLLAND: Gall-stones in a case with Stenosis of the Pylorus, and Urethral Calculi (240 in number) from a Pouch growing from the Urethra.

Mr. G. C. E. SIMPSON: Several Ureteral, Prostatic, Intestinal, and Gall Stones.

Professor BUCHANAN: Specimens illustrating Leukæmia, and demonstrating the Life-history of a Leucocyte.—Mr. MONSARRAT discussed the formation of prostatic stones, and gave his opinion that they were formed in the gland itself.—Dr. STANSFIELD, Dr. WARRINGTON, and Professor J. M. BEATTIE also discussed the specimens.

Professor GLYNN read a note upon a case of Dysentery due to Bacillus Y which had been isolated by Dr. J. Bamforth from a patient in the Liverpool Royal Infirmary.—Professor BUCHANAN gave details of the clinical picture and of the treatment.

Mr. W. P. GOWLAND gave a demonstration of the Method of Reconstructing Embryos in Wax. The special method of preparing the sections, the drawing of them by means of the Edinger projection apparatus, and the means by which the drawings were converted into wax plates, were explained with the aid of specimens and lantern slides. Models kindly lent by Professor Peter Thompson and Mr. Rutherford were exhibited. Dr. Gowland pointed out the great necessity for coöperation in this branch of work between the practising physician and surgeon on the one hand and the pure scientist on the other hand.—Dr. WARRINGTON and Professor GLYNN discussed the paper, and Mr. GOWLAND replied.

## EDINBURGH OBSTETRICAL SOCIETY.

*Ethical Questions, Eugenic and Obstetric.—Extra-uterine Pregnancy.*

A MEETING of this society was held on Feb. 11th, Sir J. HALLIDAY CROOM, the President, being in the chair.

Dr. J. HAIG FERGUSON read a short note on a case involving some Ethical Questions, Eugenic and Obstetric. The patient was an unmarried girl of 18, living with her parents, weak and facile, and about seven and a half months pregnant. Her development was good physically, her appearance by no means unattractive, but she undoubtedly would come under the class now recognised as "degenerates." Her pelvis was small, the diagonal conjugate measuring not more than 3½, possibly only 3, inches, which made the true conjugate about 2½ inches, and the pelvis seemed uniformly contracted. When first seen she had passed the time for

induction of premature labour with such a pelvis as hers, and the only possible treatment was Cæsarean section at or near full time. Eugenically it was probably advisable to sterilise this girl at the time of Cæsarean section, but this could not be done without her consent. From a medical point of view it was not usual to sterilise a woman nowadays in her first Cæsarean section, in the absence of other disease, however small her pelvis might be. The first child might not survive or might be weak or deformed, and it was right, now that Cæsarean sections were comparatively safe, to give the woman at least one more chance should she marry. Apart from the social difficulty in a case like this another question arose. If she were sterilised without her consent and later married, and it was discovered that she had been sterilised, no matter how good the reason might have seemed, a good claim for legal damages would probably lie against the operator. The parents of the girl, after full explanations, wished their daughter to be sterilised, and were willing to authorise it in writing, but it was doubtful if this would prove a legal safeguard in dealing with a girl of her age. The parents did not wish the girl or her neighbours to learn that she would be unable to conceive again. An unmarried woman's knowledge that she could not conceive might lead to disastrous results. The speaker knew of a girl who after removal of two ovarian dermoids became completely demoralised and ultimately syphilitic, though at one time of the highest character. In another recorded case a girl who had become syphilised vowed vengeance on the male sex and tried to infect as many men as possible. It might be said that medical men had nothing to do with the social or moral aspects on such a case as the present. On the other hand, nothing, however medically justifiable of itself, which was likely to bring difficulties into any community should be done.—Dr. D. BERRY HART considered the right thing was to do the Cæsarean section, leaving the girl as she was. An illegitimate child was very much neglected in this country and its fate was very hard, but abroad honorary guardians were appointed, and the father had to pay a certain amount. He knew cases where the illegitimate children of people in good society were allowed after the age of 14 to drift into the very lowest strata of society.—Dr. F. W. N. HAULTAIN had to operate on this patient during his term of duty. He thought her an intelligent girl. The parents had authorised him to sterilise her, but the patient absolutely refused to give any decision. He therefore had decided to operate and leave things as they were. If she lived it was conceivable that she might become worse in her habits and give rise to considerable disease, but also it was quite possible that if she had a child it might have a salutary effect on her.—Dr. J. LAMOND LACKIE said that two years previously at the Maternity Hospital a patient was admitted in the second stage of labour whose first labour (both were illegitimate pregnancies) required craniotomy. The conjugata vera was narrow; forceps failed and pubiotomy was mentioned to the patient, but she wished the child destroyed, as in the first labour. The child was alive. Craniotomy was done, but he wondered if one was justified in doing craniotomy (where the risk was as great as in pubiotomy) and thus destroying a possible useful citizen. Dr. Lackie felt that if pubiotomy was as safe as craniotomy he had done wrong.—Professor R. JARDINE (Glasgow) considered the proper thing had been done in the present case. In illegitimate cases he never sterilised the woman without some other good reason for doing so. If the woman married afterwards she ought to have the chance of maternity. In married cases he did sterilise with the patient's consent and many wished it. In cases requiring Cæsarean section he sterilised on a second operation. It might be asked, Why not let her go on? Recently he had had a case in which he had done Cæsarean section a third time. He had done the first, another doctor, who had refused to sterilise, the second. When the third operation was called for the union was so thin that it would have probably ruptured. Cases of rupture from this cause were admitted into the Maternity Hospital. The condition might be left till a second pregnancy, but if the patient or her husband refused consent it was not done. That was rarely the case though. He had done craniotomy when he thought it was best for the mother, but in similar circumstances to Dr. Lackie's he would be much inclined not to do it.—Dr. A. H. F. BARBOUR did not think one should do on a married woman what one would not do on an unmarried woman. If the woman subsequently married and her husband brought an action, he thought a judge would hold that the woman ought to have communicated that fact to her future husband. One must be careful about imposing laws and conditions on a patient as regards sterilisation from the point of view of moral degeneracy.—Dr. JAMES RITCHIE considered Dr. Haultain's action was the right thing to do. In Dr. Lackie's case he would have done the pubiotomy without consulting her; he did not think it was right to destroy a child because the mother wished it to be done.—Dr. LACKIE replied that one could not operate without consent.—Dr. JAMES YOUNG said statistics showed that in an aseptic woman the risk from craniotomy was practically *nil*, whereas that from pubiotomy, in which the conditions were similar, was at least 2 or 3 per cent., not to mention the risks to the locomotor powers of the patient. Dr. Lackie did the very best thing for the mother who, if the risks of pubiotomy had been known to her, would have refused. In a court of law the mother's interests were paramount.—The PRESIDENT said in the first case the question was, Was the woman really degenerate? If she was, with or without permission, one ought to sterilise. He agreed with Dr. Lackie's treatment of his case.—Dr. W. FORDYCE and Dr. H. S. DAVIDSON also discussed the paper.—Dr. FERGUSON, in replying, read a letter from Sir Thomas Clouston, in which he said that while it was difficult to conclude in the absence of a personal examination, the presumption was that the girl came under the definition of feeble-minded persons or moral imbeciles in the new Mental Deficiency and Lunacy (Scotland) Act, which he quoted. If that was so her parents' consent to operation would be a valid defence against action. But under the Act or not he thought a surgeon was fully justified in sterilising her as part of the Cæsarean section, as a preventive against the risk of another pregnancy in view of the possibility of natural delivery. With what would happen from an ethical or social standpoint the surgeon had practically nothing to do.

The PRESIDENT contributed a report on a case of Extra-uterine Pregnancy, which had developed to full term without giving rise to any symptoms whatever. The patient was sent in with supposed hydramnios. There was found to be a large quantity of fluid in the abdomen which was diagnosed as tuberculous peritonitis, and within it what appeared to be a pregnant uterus. Although thorough examination was difficult, there was no indication of anything but an ordinary pregnancy. After being eight years married this was her first pregnancy. She died suddenly, and on the abdomen being opened a large tumour, corresponding to a pregnant uterus at term, was found, and through a ragged opening in the left side posteriorly a fœtal foot projected. This was supposed to be a ruptured uterus. On further examination it was discovered to be evidently an eight months extra-uterine gestation sac containing a fœtus approaching term, and the uterus was enlarged 4½ inches and lay below the gestation sac. Apparently the original implantation of the ovum had been on the anterior and posterior aspect of the tube. The abdominal contents were matted together by a diffuse and extensive tuberculous peritonitis. The interesting point was that pregnancy had reached this stage of development without giving rise to any symptoms whatever; and the rupture also must have taken place practically without any symptoms.—Dr. W. FORDYCE, Dr. BARBOUR, Dr. FERGUSON, and Dr. HAULTAIN discussed the subject, and the PRESIDENT replied.

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MEDICO-PSYCHOLOGICAL ASSOCIATION OF GREAT BRITAIN AND IRELAND.—A meeting of this association was held at Storthes Hall Asylum, West Riding, at the invitation of Dr. T. Stewart Adair, and by the courtesy of the Visiting Committee, on Feb. 19th, under the presidency of Dr. James Chambers.—A paper was read by Dr. H. Devine (Wakefield Asylum) on the Clinical Significance of Katatonic Symptoms. He said that katatonic symptoms are not necessarily significant of a deteriorating process, and the syndrome is frequently observed as a phase of the various forms of relapsing psychosis. The absence of confusion indicates a favourable prognosis, but a symptomatological diagnosis is not always possible. Especial attention

must be paid to the make-up of the personality. Cases which deteriorate are usually found to have exhibited constitutional traits of an abnormal character before the outbreak of the psychosis. These habits are described under the heading of the shut-in personality. The cases which recover are dependent upon a hysterical or cyclothymic constitution, each with special reaction tendencies.—The paper was discussed by the President, Dr. Bedford Pierce, Dr. G. D. McRae, Dr. G. R. Jeffrey, Dr. J. G. Soutar, Dr. M. A. Collins, Dr. D. Bower, and Dr. R. H. Cole.—Mr. H. Salter Gettings (Wakefield) made a short communication on Bacteriological Investigations on Asylum Dysentery. He stated that the bacilli belonged to the group which did not touch lactose, and that he had found non-fermenting colonies in 44 out of 84 samples, and of these 44, in 39 the bacillus dysenteriæ was present. He had found that the bacillus was not always present in the same patient, and concluded this in some degree accounted for the high percentage of failures to isolate the organism.—Dr. W. H. Robinson and Mr. Gettings made a communication on the Pathology of General Paralysis. Four cases were quoted; in two the Wassermann reaction was negative, but the symptoms clinically and naked-eye post mortem were typical of general paralysis, but microscopically proved to be arterio-sclerotic in origin, and the spirochæta was not found in smears. In the other two cases the clinical and naked-eye symptoms were those of general paralysis of the insane, and the Wassermann was positive. These cases proved microscopically to be general paralysis of the insane, and the spirochæta was isolated in both cases. Mr. Gettings thought that clinical general paralysis of the insane might be of two origins, and this might explain the controversy between the "no syphilis, no G.P." school and others.—Dr. Devine, Mr. T. Graeme Dickson, and Dr. Soutar discussed the paper.

LEEDS AND WEST RIDING MEDICO-CHIRURGICAL SOCIETY.—A meeting of this society was held on Feb. 13th, Professor T. Wardrop Griffith, the President, being in the chair.—Professor R. Lawford Knaggs read a paper on a case of Fragilitas Ossium, and described certain diseases of bone that gave rise to that condition. The paper was illustrated by lantern slides.—The paper was discussed by Mr. W. Thompson, Mr. S. W. Daw, Mr. F. H. Mayo, Mr. H. Collinson, and Mr. J. F. Dobson.—Dr. W. H. Maxwell Telling and Mr. Daw showed a case of Rheumatoid Arthritis. The patient, who had been unable to walk for the past five years, had had the knees straightened forcibly after tenotomies, and could now walk in caliper walking splints.—Mr. Collinson showed a Ureteral Calculus which had been passed spontaneously. The calculus could be felt by a ureteral catheter which was passed beyond it. Olive oil was injected into the ureter above the calculus.—Mr. Alexander Sharp showed a patient with a Dental Cyst invading the antrum of Highmore. A skiagram showed the cyst involving the larger part of the antrum. It was proposed to treat the case after the radical method of dealing with chronic antral empyema.—Mr. Dobson showed specimens from cases illustrating the association of acute appendicitis with tuberculosis of the ileo-colic glands.—Mr. Mayo showed bone specimens from a case of Osteomalacia with skiagrams.

NOTTINGHAM MEDICO-CHIRURGICAL SOCIETY.—A meeting of this society was held on Feb. 18th, Mr. R. G. Hogarth, the President, being in the chair.—Dr. J. S. Risien Russell, physician to the University College Hospital, gave an address on the Affections of the Nervous System which are responsible for Ataxia. After having enumerated the various affections which caused ataxia the lecturer in great detail dwelt on the differential diagnosis of tabes, disseminated sclerosis, subacute combined degeneration of the cord, peripheral neuritis, cerebellar tumour, and Friedreich's ataxia. The lecture was illustrated by lantern slides.

ROYAL DENTAL HOSPITAL OF LONDON.—The annual general meeting of the governors will be held at the hospital on Thursday next, March 12th, at 5.30 P.M., Sir Stuart M. Samuel, Bart., M.P., a vice-president of the hospital, in the chair, to receive the annual report, and elect the committee of management, the treasurer, and auditors for the ensuing year. All governors, including ladies, are invited to attend.

# Reviews and Notices of Books.

*A Manual of Operative Surgery with Surgical Anatomy and Surface Markings.*

By DUNCAN C. L. FITZWILLIAMS, M.D., Ch.M. Edin., F.R.C.S. Eng., F.R.C.S. Edin., Surgeon in charge of Out-patients, St. Mary's Hospital; Senior Assistant Surgeon to Paddington Green Children's Hospital; Lecturer on Clinical Surgery and Joint Lecturer on Operative Surgery, St. Mary's Hospital Medical School. London: Baillière, Tindall, and Cox. 1913. Pp. 450. Price 10*s.* 6*d.* net.

THIS text-book, so the author tells us, is intended, not for the operating surgeon, but for two classes of readers who have not trodden so far on the road of surgery: in the first place for the student, who needs to learn even the most elementary groundwork of the subject, but to whom the practical details are of comparatively little importance; and also for those whom the author describes as the journeymen craftsmen of our profession, who are able to value the practical importance of details in the mode of carrying out operative procedures. Mr. Fitzwilliams has, wisely we think, incorporated in his book an ample account of the surgical anatomy and surface markings which are of so much practical importance in the operations of surgery, and yet are often omitted in works relating thereto.

From a careful examination of this work we feel fully satisfied that the author has achieved his aim in providing for his readers a good and trustworthy treatise on the methods of operative surgery. There is a tendency at the present time among some surgeons to disparage the form of teaching operative surgery which has prevailed for many years; for, in their opinion, the student is taught many operations which he will never perform or see performed in practice. Instead of a set amputation he will see a surgeon amputate a limb where the injury has necessitated the operation, and the flaps will be cut according to the amount of skin which is left. All this is very true, but there are no sufficient reasons for banishing from our text-books the methods which are ideal, and yet which are seldom if ever applicable to cases as they occur in practice. In the study of mathematics the student has to solve many problems which will never occur in practice. It is said that it is useless for the student of surgery to tie blood-vessels in their continuity, for in practice these operations are hardly ever done; but here again the student's skill is trained, and even the practical knowledge so acquired will be of great benefit to him hereafter. It is true that to the operations of the past many new ones have been added, and these should always be included in a course on operative surgery for students, and this has been done in this case; but we should regard it as a distinct mistake to exclude the old ones. All operations are of value in the training of the student, and a very large number of operations is possible on one cadaver.

We have not seen any work which is better suited for the student or the young practitioner than this, and the illustrations are numerous and adequate. We must acknowledge that we are pleased to find that the author has employed the usual nomenclature in the use of anatomical terms, instead of the inaccurate and eccentric names of the Basle nomenclature. He will doubtless agree that reform of our anatomical names is needed, but it must be a reform founded on common sense.

*A Text-Book on Trade Waste Waters: their Nature and Disposal.*

By H. MCLEAN WILSON, M.D., B.Sc. Edin., and H. T. CALVERT, M.Sc., Ph.D., F.I.C. With 74 illustrations, including 22 plates. London: Charles Griffin and Co., Limited. 1913. Pp. 340. Price 18*s.* net.

THIS book deals with a very important branch of sanitation. The reforms that have been effected in regard to the healthy disposal of potentially offensive trade waste of all kinds are comparatively of modern introduction. Time was when practically all the waste waters produced in trade processes were poured without any restrictions into the nearest streams. As manufactures developed an appalling state of affairs was soon reached, and it was not until 1876 that any earnest attempt was made to stop the enormous pollution of streams going on all over the country. Although the Rivers Pollution Prevention Act was passed in 1876, it was not until executive powers were given to the county councils created under the Local Government Act, 1888, that any effective steps to prevent pollution were put into force. The recent recommendations issued in numerous reports of the Royal Commission on Sewage Disposal appointed in 1898, whose labours are not yet at an end, disclose the attempts to strengthen the position of legislation in this matter. As is pointed out by the authors of this work, there are still difficulties encountered in taking legal proceedings against a manufacturer who pollutes a stream; certain restrictions and saving clauses in the Acts of Parliament assist the abuse. It is stated, for example, that in the case of a pollution newly commencing, just as in the case of one which has been continuing for 100 years, an authority is debarred from taking proceedings until the sanction of the Local Government Board has been obtained, and in practice, these writers go on to say, this is never given until local inquiry has been held and proof given of the existence of pollution and of the means for its prevention. To sum up: "The history of Parliamentary action in dealing with trade pollution has been, as may be gathered from the foregoing, characterised by delay and weakness."

The book covers wide ground, the industries dealt with being the coal trade, coal gas manufacture, grain washing, malting, brewing, and distilling, the leather trades, the paper trade, the textile trades, and miscellaneous trades. The textile trades have called for more space than the others, three chapters being devoted to this section of the subject. The processes from which the waste waters arise, and the methods of purification which have been adopted, are clearly and adequately described, and altogether the book provides a source of profitable study and reference to manufacturers as well as to executive officers concerned in an important branch of sanitary administration.

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*The Catarrhal and Suppurative Diseases of the Accessory Sinuses of the Nose.*

By ROSS HALL SKILLERN, M.D. London and Philadelphia: J. B. Lippincott Company. Pp. 389. Price 18*s.* net.

THE increase in the general scope of the many excellent works by American and English authors dealing with the ear, nose, and throat, either as a whole or separately, has not permitted the consideration in minute detail of the diseases of the nasal accessory sinuses. For this information one has to turn to monographs which, whilst admirable from the standpoint both of scientific accuracy and of practical application, are mostly in the German and French languages, so that a teacher is at a loss to supply the want of a student not conversant with foreign languages. The object of this work is to supply that want—namely, to provide in English a thorough treatise on the catarrhal and suppurative diseases of the accessory sinuses of the nose.

The subject is divided into five parts, dealing respectively with general considerations, the maxillary sinus, the frontal sinus, the ethmoid labyrinth, and the sphenoid sinus. The book is fully illustrated; in addition to five coloured plates there are nearly 400 illustrations in the text. Doubtless this accounts for the book being printed on a thick and highly glazed paper, which, whilst giving sharpness to the illustrations, adds to the bulkiness of the volume and wearies the reader by artificial light. Ample references to the literature of the subject are given at the foot of a page. There is a good deal of repetition, which obviates the necessity of referring to other parts of the book. The value of this treatise as a work of reference would have been increased for the general practitioner if a little more had been said about the ultimate results of operations upon the accessory sinuses of the nose, and more particularly upon the frontal sinus.

Under a section on "Chronic Complications" in the part on the frontal sinus the author adds the following footnote: "Owing to the paucity of material and lack of sufficient American data, this section is largely based on Gerber's recent work, 'Die Komplikationen der Stirnhöhlenentzündungen,' Berlin, 1909." A reference to Gerber's work shows that the results of operations on the frontal sinus are not so gratifying as some might be disposed to believe.

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*The Modern Treatment of Nervous and Mental Diseases.*

By American and British authors. Edited by WILLIAM A. WHITE, M.D., Superintendent of the Government Hospital for the Insane, Washington, D.C.; and SMITH ELY JELLIFFE, M.D., Adjunct Professor of Diseases of the Mind and Nervous System in the Post-Graduate Medical School and Hospital, New York. In two volumes. With illustrations. Philadelphia and New York: Lea and Febiger. 1913. Vol. I., 867 pp.; Vol. II., 816 pp. Price £3 net.

IN the general preface to these two handsome volumes the editors remark that care has been taken to supply an omission conspicuous in previous treatises on the therapeutics of nervous and mental disease. "The larger human problem of the individual, the man, the biological unit, and his social relations" has been neglected. It has been the editors' endeavour, therefore, to ensure that sufficient emphasis is laid upon the psychical side of life, as well as upon the physical, in the matter of treatment. There are as wide opportunities for preventive medicine in neurology and its sister science psychiatry as in any department of medical activity.

A glance at the divisions of the subject dealt with in the opening pages of the first volume will give the reader some idea of the comprehensive way in which the word "treatment" has been interpreted. Eugenics and Heredity in Nervous and Mental Diseases is the title of the first chapter, in which the important facts of heredity are handled by Professor White himself. Education is from the pen of Professor Colvin, of Brown University;

Sexual Problems, their Nervous and Mental Relations, is the title of a careful contribution by Mr. Havelock Ellis; the Educational Treatment of the Feeble-minded is fully discussed by Dr. Goddard; Dr. William Healy has had the important subject of Delinquency and Crime in Relation to Mental Defect or Disorder allotted to him; and Dr. Thomas Salmon treats of Immigration and the Mixture of Races in Relation to the Mental Health of the Nation. These contributors, if some of their names are not as yet very familiar to the English reader, are accepted authorities on their own specialties in America, and the articles they have written maintain a high level of scholarship and practical worth. In the same volume every form and variety of mental disease is discussed from the therapeutic viewpoint by competent authorities at considerable length and in all its bearings. The volume is completed by chapters on the Application of Legal Measures from the Remedial Aspect, Nervous and Mental Disorders in their Military Relations, and Functions of the Hospital in Nervous and Mental Disorders.

The second volume contains the work of the neurological contributors. Neuralgia, headache, spasmodic disorders, epilepsy, muscular atrophy, are some of the subjects that receive chapters to themselves. There is a valuable chapter by Dr. Louis Casamajor on the Treatment of the Toxæmias of Dangerous Trades and of Drugs. The treatment of injuries to the peripheral nerves has been assigned to Mr. J. Sherren, who is one of the three English contributors. The others are Dr. Gordon Holmes and Dr. Kinnier Wilson, both of the National Hospital, Queen-square, the former dealing with diseases of the optic thalamus, mid-brain, and cerebellum, and the latter with disorders of expression (aphasia, apraxia, and dysartliria).

It is long since so comprehensive a treatise of nervous and mental therapeutics has been offered to the medical public. It contains material not hitherto handled in any text-book dealing solely with treatment, and, taken as a whole, should meet every want of the physician and alienist. Its excellent qualities will, we trust, assure for it wide recognition and appreciation.

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*The Interpretation of Dreams.*

By Professor Dr. SIGMUND FREUD, LL.D. Authorised translation of third edition, with introduction, by A. A. BRILL, Ph.B., M.D., Chief of the Neurological Department of the Bronx Hospital, New York. London: George Allen and Co. 1913. Pp. 510. Price 15*s.* net.

REFERENCE has been made on more than one recent occasion in the columns of THE LANCET to Professor Freud's views on the significance of dreams, and the reader who has been following the development of the Freudian hypothesis will know the important place therein assigned to dreams and their interpretation. It may, indeed, be said that familiarity with Freudian views can be obtained only by a careful study of his well-known book "Die Traumdeutung." When a few months ago the articles of Dr. William Brown, of King's College, appeared in THE LANCET the opportunity was taken to review Freud's teaching in the matter of dreams,[1] and it is therefore not necessary again to enter on a detailed examination of the volume under review. In its English form the publishers append a note to the effect that the sale of the book is limited to members of the medical, scholastic, legal, and clerical professions. The "Traumdeutung" is certainly the author's greatest and most important work, and none contributes more towards an intelligent appreciation of the Freudian viewpoint.

Considering the difficulties surrounding the adequate rendering of the original German, we have every reason to compliment Dr. Brill on his satisfactory accomplishment of the task. The translation reads very smoothly, and at the same time it is conspicuously faithful to the original. To psychologist and physician the work is indispensable if psycho-analysis is to be intelligently pursued or the author's theories are to be fairly tested and utilised.

[1] THE LANCET, May 10th, 1913, p. 1327.

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*Lehrbuch der Physiologischen Chemie in Vorlesungen.*

Von Professor Dr. EMIL ABDERHALDEN, Direcktor des Physiologischen Institutes der Universität Halle a.S. Dritte, vollständig neu bearbeitete und erweiterte Auflage. I. Theil. Die organischen Nahrungsstoffe und ihr Verhalten im Zellstoffwechsel. Mit 2 Figuren. Berlin und Wien: Urban und Schwarzenberg. 1914. Pp. 736. Price, paper, 21 marks; bound, 23 marks.

THE second edition of this Text-book of Physiological Chemistry appeared in 1909, and was published in one volume containing 984 pages. The number of lectures was 32. Now we have before us Part I. of the third edition which alone contains 33 lectures. Few physiologists are so well equipped as the indefatigable director of the Physiological Institute of Halle to discourse on the subject of physiological chemistry.

We have compared this part of the new edition with that of 1909, and we can confirm the author's statement that scarcely a sentence has been transcribed from the second edition. It is therefore largely a new work and far more comprehensive than the previous one. Plant physiology and the applications of chemistry to pathology have in recent times greatly extended their boundaries, and cognisance has been taken of these facts. In its preparation over 20,000 papers of one kind and another have been consulted, and, of course, to introduce all these titles would render the already bulky volume all too ponderous, so only references to the most important literature are quoted. In all eight lectures are given to the carbohydrates, first from a purely chemical point of view, then their formation in plants and their relations to photo-synthesis are considered. Their relations in the animal organism, their decomposition in the alimentary canal and the action of the intestinal flora on them, and their relation to cell metabolism are next discussed. Alimentary glycosuria, the regulation of carbohydrate metabolism, "diabetic puncture," the relation of the suprarenal glands to the sugar metabolism in the liver, the significance of the pancreas in diabetes mellitus, the formation of acetone bodies, phloridzin glycosuria, and the origin of carbohydrates in the animal body are some of the other subjects dealt with in the lectures devoted to the carbohydrates.

For the fats and their allies five lectures suffice. The lectures deal with the fats, wax, alcohols, esters, phosphatides and their formation, as well as the formation and disintegration of fats in the animal and vegetable kingdoms. The behaviour and uses of fats in the body and their relations to proteins and grape sugar are next explained. Fourteen lectures are devoted to the proteins. Two

of these deal with the "Bausteine," or the amino-acids and their conjugations, to produce peptones and polypeptones. A very full account is given of the distribution, constitution, functions, and mode of formation of the proteins both in plants and in animals. The results of their digestion in the alimentary canal are fully set forth, and the fate or destiny of the products of their intestinal proteolysis is followed throughout the body. To the actions of the intestinal flora and the amino-acids of the intestine one lecture is allocated; another to what happens to the amino bodies after they enter the blood from the intestinal canal. Their relations to cell metabolism are intimately discussed and the final products of protein metabolism are then considered. Two lectures suffice for the nucleo-proteins and nucleic acid. Blood and its colouring matter, chlorophyll and other colouring matters occupy one lecture, while the last lecture deals with the origin of blood and its pigment, their condition in the animal organism, and the relation of hæmatin to the bile pigments and urobilin. The story of the bile salts brings the lectures to a close.

This is a most commendable and elaborate presentation of a subject which is growing daily in importance, and one which must command more and more the attention of teachers of physiology and biochemistry to medical students. Part II., which deals with the Inorganic Nutrient Bodies, is announced to appear in the spring of this year.

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*School Clinics at Home and Abroad.*

By LEWIS D. CRUICKSHANK, M.D. Aberd., D.P.H. Cantab. London: The National League for Physical Education and Improvement. 1913. Pp. 171. Price 2*s.* 6*d.* net.

THIS book is divided into three parts, of which the first deals with the problem of treatment, and, describing the available means, enters into a general description of the school clinic; Part 2 deals with clinics actually in operation at home, and Part 3 with clinics abroad. So rapidly does the school clinic movement progress that the second section is not now full enough, but this does not impair the value of the work as a book of reference for the school medical officer and the educationist.

Dr. W. Leslie Mackenzie, in the introduction, states that "the present volume has been prepared for the active citizen," and the book will serve the "active citizen" interested in education very well; but it would have served him even better had the style of the writing been clearer and more crisp. The legal aspects of the problem of treatment occupy the second chapter. The available means of treatment are dealt with in the third, and the arguments for and against treatment at hospitals are fairly set out, as is also the "attitude of the hospitals," an attitude usually antagonistic to the undertaking of treatment for school children's ailments. From the standpoint of the school medical officer Chapter VI., on The School Clinic: its Departments and Work, is of particular interest, illustrating as it does, from the case of existing institutions, what can be accomplished. The photographs appended will help to convey a vivid idea to the lay mind of the work that is being done by school clinics. The departments into which a clinic's treatment work can be divided are given as: A. General medical department: (1) treatment of minor ailments, (2) cleansing schemes, and (3) X ray treatment of ringworm. B. Ophthalmic department. C. Dental department. D. Orthopædic department. E. Operative department. Any one of these departments may be started separately and others added as need and opportunity arise. The staff and accommodation needed for a clinic and the cost are all separately considered with reference to schemes in operation.

This is a useful volume and should do much to explain the reasons for the institution of school clinics to a public that is too ready to regard them with prejudice.

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*Handbook of Diseases of the Rectum.*

By LOUIS J. HIRSCHMANN, M.D., Lecturer on Rectal Surgery and Clinical Professor of Proctology, Detroit College of Medicine. Second edition. Illustrated. London: Henry Kimpton; Glasgow: Alexander Stenhouse. 1913. Pp. 339. Price 18*s.* net.

WE reviewed the first edition of this work on its appearance, and we are pleased to welcome a second edition. It retains all the good points which rendered the earlier issue a very convenient text-book for the general practitioner who wants to know something more of the surgery of the rectum than is contained in the surgical text-books, and, in addition, this issue has several new features which enhance its value. Especially we would mention the account of the use of quinine and urea hydrochloride as a local anæsthetic; this substance is not employed to the extent which it deserves, for it is very safe and its action is long lasting. The technique of operations on the rectum with the aid of local anæsthesia has been very fully described, and this should prove of value.

We can cordially recommend the book as a very practical introduction to the diseases of the rectum.

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## LIBRARY TABLE.

*Collected Reports of the Department of Neurology, Harvard Medical School.* Volume V. 1912.—The fifth volume of reprints of contributions emanating from the neurological department of the Harvard Medical School contains several from the pen of the veteran neurologist, Dr. James J. Putnam. Among these may be enumerated Personal Impressions of Sigmund Freud and his Work, Personal Experience with Freud's Psychoanalytic Method, on the Etiology and Treatment of the Psychoneuroses, a Plea for the Study of Philosophic Methods in Preparation for Psychoanalytic Work, on Freud's Psychoanalytic Method and its Evolution, and Comments on Sex Issues from the Freudian Standpoint. It will be seen, therefore, that Freudism has entered largely into the work in recent years of the Boston neurologist. There are also papers by Dr. E. W. Taylor and Dr. G. A. Waterman bearing more or less on the Freudian hypothesis. Of the 18 contributions in this volume of reprints only four are concerned with organic nervous disease. The general level of the papers is high, and the reputation of the department has been worthily maintained.

*Explanatory Lectures for Nurses and their Teachers.* By H. HAWKINS-DEMPSTER. Bristol: John Wright and Sons, Limited; London: Simpkin, Marshall, Hamilton, Kent, and Co., Limited. 1913. Pp. 224. Price 3*s.* 6*d.* net.—This book will, we think, be found very useful by those for whom it is intended. It is, in fact, a commentary on the ordinary course of lectures on nursing, elucidating various points. The work is divided into 13 "subjects" which are treated respectively in one, or more generally two, "lectures." Thus, Subject I.

deals with the keeping of charts, Subject VII. with bacteriology, Subject X. with dropsy, and Subject XIII. with observation and precision. The book is written in a simple yet interesting style, and one good though somewhat unusual feature is the use made of analogies and comparisons between pathological or physiological processes and everyday occurrences—e.g., "We may roughly compare the heart and the circulation to two covered platforms built back to back within one station, with double lines in common, but with no passage through the station itself." Mr. Hawkins-Dempster then explains that passengers start from platform A, journey by the outgoing lines to market towns (the capillaries), where they buy and sell, and return, exhausted and soiled, by the ingoing lines (the veins) to platform B (the right side of the heart). Further on he explains the pulmonary circulation in similar fashion. Again, the condition of the blood-vessels in sclerosis is well compared to the lesions seen in old water-pipes, where the glaze has given way or has been worn off, so that the unprotected earthenware has disintegrated, or deposits of lime or chalk have been formed, and the calibre of the pipe is seriously lessened. Besides the 13 subjects, there are four supplementary lectures, intended not for trained or training nurses, but for "first aid" hearers, which deal with fractures and hæmorrhage. The book is eminently practical, and many a medical man who has to lecture to nurses will find it useful; not that it will teach him any new medical or scientific fact, but it will give him "tips" for imparting knowledge, a faculty which is by no means common to those possessing it.

*A Manual of Ambulance.* By J. SCOTT RIDDELL, M.V.O., M.B., C.M. Aberd., Senior Surgeon and Lecturer on Clinical Surgery, Aberdeen Royal Infirmary. Sixth edition. Illustrated. London: Charles Griffin and Co., Limited. 1914. Pp. 254. Price 6*s.* net.—This work was first issued in 1894, and during the 20 years that have elapsed it has passed through six editions, with considerable enlargement. In the present volume sections on artificial respiration, the treatment of electrical accidents, and on ambulance transport have been added. The information given is complete and clearly arranged, and is illustrated by more than 200 figures, many being full-page plates. The chapter on Voluntary Aid Detachments and their Work is excellent; as a concrete instance of practical organisation the author takes the case of the Highland Division and Mounted Brigade of the Territorial Force, called out to oppose a landing on the shores of the Moray Firth. A specially prepared map is inserted, showing the disposition of medical aid detachments. Such a well thought out scheme is exactly what should be prepared *mutatis mutandis* by all auxiliary detachments throughout the country. Another valuable chapter is that on the first-aid treatment for accidents from electricity. In applying the "reversed bandage" (page 41), for "thumb of right hand" should be read "thumb of disengaged hand" (as it varies with the limb bandaged). No more comprehensive or better illustrated manual of ambulance work could be wished for than Dr. Riddell's volume.

## JOURNALS AND MAGAZINES.

*Parasitology.* Edited by GEORGE H. F. NUTTALL, F.R.S., and ARTHUR E. SHIPLEY, F.R.S., assisted by EDWARD HINDLE, Ph.D. Volume VI., No. 4. January, 1914. Cambridge University Press. Price 10*s.* net; yearly subscription £1 10*s.*—The Trematode Parasites of North Queensland, I., by William Nicoll, contains the descriptions of 12 new species, two of which represent new generic types. This paper is the first of a series on the trematodes of Queensland and the Northern Territory, and is of special interest considering the economic importance of parasitic worms.—Pseudo-Parasitism, by A. E. Shipley, is a record of two very curious cases of pseudo-parasitism which have come under the author's notice. The first case is that of a woman, aged 68 years, from whom centipedes had been vomited and passed during a period of 12 or 18 months. Some of the centipedes emerged through the patient's nose, and as many as seven or eight, sometimes more, were daily leaving the alimentary canal. According to the statement of her medical attendant some hundreds of these animals had left the body. Their presence produced vomiting and some hæmatemesis, and treatment with thymol, malefern, and turpentine had no effect in removing the creatures. The specimens were identified as belonging to the species Geophilus gorizensis Latzel, and considering the breeding habits of this centipede it is almost impossible to conceive that the animals are capable of multiplying in the intestine. In the second case the author had sent a partially digested specimen of a slug, Milax marginatus (Müll.), which had passed through the alimentary canal of a doctor.—Regeneration in Argas persicus, by Edward Hindle and Norman Cunliffe, is a somewhat technical paper, concerned, as the title implies, with the study of regeneration in the fowl tick. With the exception of the adults all stages of the tick possess very considerable powers of regeneration. In addition, from their experiments the authors are of the opinion that in Argas persicus there is a tendency towards the suppression of the free larval stage, as in the case of Ornithodorus moubata, the human tick.—Rhipicephalus sanguineus: Variation in Size and Structure due to Nutrition, by Norman Cunliffe, is a decided confirmation of Nuttall's previous work on this subject, in which he expressed the opinion that the variation in size of ticks is mainly due to their being forcibly removed at various stages of engorgement. The striking effects of malnutrition in the case of R. sanguineus are well shown in the present paper.—Observations on Argas brumpti, Neumann, 1907, by Norman Cunliffe, contains notes on the egg laying and also the first description of the larva of this somewhat rare East African tick.—The Anatomy of Argas persicus (Oken, 1818), Part III., by L. E. Robinson and J. Davidson, is the concluding part of these authors' monograph of the anatomy of the common fowl tick. Nothing seems to have been left untouched, and now that the full monograph has appeared, with its magnificent coloured plates and wealth of illustrations, the authors are to be congratulated on the completion of a work which will remain as a basis for all future study of that most important group of parasites, the Ixodoidea.

*The Philippine Journal of Tropical Medicine*, Vol. VIII., Section B, No. 5.—The first article in this number is on Experimental Balantidiasis, by Dr. E. Linwood Walker, and is illustrated by 7 plates. Dr. Walker states that the affection caused by balantidium coli is relatively common in man in the Philippine Islands, and a large proportion of pigs are similarly affected, balantidia being passed in the resistant encysted stage in the stools of the infected animals, which are to be regarded as the chief source of the human disease in that part of the world.—Dr. R. B. Gibson gives the results of a number of experiments he made on the Influence of Compensated Salt Mixtures on the Development of Polyneuritis Gallinarum and Beri-beri. He concludes that the addition of such a mixture to white rice, with which fowls are fed, does not prevent the development of polyneuritis, though the onset of the disease is slightly delayed and the degenerative changes in the nerves are less pronounced. This paper is illustrated by 4 plates.—Dr. A. Marshall Barber gives an account of an unusual disease which prevailed in epidemic form at Buki, Ambos Camarines, on the island of Luzon. It was characterised by an inflamed spot or nodule on the skin, with severe constitutional symptoms, and was often fatal. Plague and anthrax were excluded, the only positive laboratory findings being pyogenic cocci. No similar epidemic had been previously observed.—The same author contributes another paper, illustrated, in continuation of previous investigations on the same subject, on the Infection of Achyla, one of the fish moulds, with various micro-organisms.—Dr. W. E. Musgrave and Dr. A. S. Sison describe four cases of Acute Malignant Glanders in Man, and Dr. C. M. Reyes furnishes a short article on Noma in the Philippine Islands, with report of a case

ending in recovery.—Three members of the United States Army Board for the study of tropical diseases as they exist in the Philippines—viz., Major P. M. Ashburn, Captain E. B. Vedder, and Lieutenant E. R. Gentry—contribute a report concerning Varioloid in Manila, some 500 cases of which were recently certified. These officers, however, arrived at the conclusion that the prevalent malady was chicken-pox and not small-pox, even of a modified kind.

## SUNSHINE AND RAINFALL DURING 1913.

IT will be seen by the figures tabulated below, which have been obtained from an annual summary of the weather published by the Meteorological Office, that practically all parts of the British Islands had less sunshine than usual during last year, but that the rainfall was deficient rather than in excess of the normal. In many localities the sunshine was about half an hour per day short of the average, in a few nearly three-quarters of an hour, and at the Scilly Islands almost an hour. The only exceptions to the rule were at Westminster and Llandudno, which were so favoured as to get two or three minutes per day more than the normal allowance. Certain spots stand out as being relatively bright in the various parts of the kingdom. Following the general order of the distribution of sunshine the Channel Islands head the figures, with a mean per day of about 4 hours 35 minutes, but one spot on the east coast—Felixstowe—was practically as bright, and the south coast of England suffered little in comparison. In the north-west it was Douglas, Isle of Man, and Rhyl, which outshone their neighbours, while in Scotland the east coast was more sunny than the west coast, and in Ireland Valencia, the very spot with the most frequent rain, was also the brightest. The most sunless places were, as always, the large cities, and of these Hull, with a mean of only about 2¼ hours per day, was the dullest. This was followed by Manchester and Glasgow, with about 2½ hours per day, and by York and the City of London, with about 2⅔ hours. Some districts in Ireland, Wales, the south-west of England, and the coast of Sussex had more rain than the average, but generally the total fall was less. The east and south-east of England maintained its reputation of being the driest region, and the very driest spot was Cromer, where the aggregate rainfall was only 16·2 in. In the metropolitan area there was a substantial deficit, amounting to more than 5 in. at Westminster, and one of the London stations—Tottenham—was again the driest place in the kingdom, when the number of days with rain are considered. On no more than 127 days was there a measurable quantity, while in the metropolis generally the number was about 165. At Valencia, on the south-west coast of Ireland, rain fell on 260 days, and at several places in the south-west and west of Great Britain there were more than 200 days with rain. Another place, Cromer, had 203 days, which is very difficult to understand, seeing that its aggregate fall was the lowest.

| — | Sunshine. | | Rainfall. | | |
|---|---|---|---|---|---|
| | Mean daily amount. | Difference from average.* | Total fall. | Difference from average.* | Number of days. |
| | Hours | Hours. | Inches. | Inches. | |
| Aberdeen | 3·40 | −0·43 | 23·8 | − 6·9 | 178 |
| Oban | 2·94 | — | 51·0 | — | 225 |
| Strathpeffer | 3·07 | −0·18 | 25·6 | − 6·6 | 195 |
| Glasgow | 2·51 | −0·48 | 34·6 | − 4·1 | 204 |
| Scarborough | 3·54 | — | 19·4 | − 7·9 | 187 |
| Cromer | 3·95 | — | 16·2 | — | 203 |
| Yarmouth | 4·11 | — | 22·6 | − 2·8 | 160 |
| Lowestoft | 4·20 | — | 21·9 | − 1·8 | 158 |
| Felixstowe | 4·63 | — | 22·2 | — | 177 |
| Clacton | 4·26 | — | 19·8 | — | 145 |
| Southend-on-Sea | 4·11 | — | 18·9 | − 2·4 | 148 |
| Margate | 3·81 | −0·40 | 20·3 | − 2·9 | 143 |
| Folkestone | 4·29 | — | 31·3 | + 3·3 | 170 |
| Eastbourne | 4·41 | −0·34 | 31·9 | + 1·0 | 176 |
| Brighton | 4·34 | −0·39 | 32·1 | + 4·5 | 168 |
| Worthing | 4·38 | — | 35·2 | + 8·2 | 170 |
| Bournemouth | 4·32 | — | 33·2 | — | 174 |
| Weymouth | 4·34 | — | 26·1 | — | 161 |
| Torquay | 4·18 | −0·55 | 33·2 | — | 176 |
| Falmouth | 4·27 | −0·56 | 45·3 | + 0·2 | 208 |
| Sandown, Isle of Wight | 4·37 | — | 32·1 | — | 193 |
| Ventnor | 4·35 | −0·36 | 21·7 | − 7·9 | 190 |
| Jersey | 4·66 | −0·61 | 28·5 | − 7·7 | 180 |
| Guernsey | 4·64 | −0·57 | 36·1 | − 1·4 | 212 |
| Penzance | 4·04 | — | 39·7 | — | 230 |
| Scilly Isles | 4·00 | −0·95 | 34·8 | + 1·2 | 216 |
| Newquay | 4·16 | −0·46 | 38·5 | + 2·4 | 221 |
| Ilfracombe | 3·93 | — | 40·5 | — | 218 |
| Weston-super-Mare | 3·58 | — | 28·1 | — | 162 |
| Pembroke | 3·74 | −0·75 | 41·5 | + 6·4 | 204 |
| Aberystwyth | 3·88 | — | 41·9 | — | 210 |
| Llandudno | 3·98 | +0·03 | 31·8 | + 1·0 | 198 |
| Rhyl | 4·15 | — | 25·5 | − 0·5 | 196 |
| Colwyn Bay | 3·96 | — | 30·1 | — | 162 |
| Southport | 3·68 | −0·33 | 28·9 | − 4·0 | 206 |
| Blackpool | 3·76 | −0·09 | 32·7 | − 1·1 | 199 |
| Douglas, Isle of Man | 4·11 | −0·28 | 37·3 | − 5·0 | 209 |
| Harrogate | 3·01 | — | 28·7 | − 2·7 | 192 |
| Buxton | 3·05 | — | 41·9 | − 8·7 | 252 |
| Matlock | 2·90 | — | 31·5 | — | 191 |
| Malvern | 3·67 | — | 34·2 | — | 181 |
| Bath | 3·88 | — | 28·6 | − 1·8 | 180 |
| Durham | 2·99 | −0·61 | 23·4 | − 3·9 | 174 |
| York | 2·89 | −0·60 | 20·5 | − 4·3 | 185 |
| Manchester | 2·42 | — | 29·8 | − 6·3 | 201 |
| Liverpool (Bidston) | 3·77 | — | 25·9 | − 3·0 | 205 |
| Hull | 2·23 | — | 20·5 | − 5·3 | 179 |
| Sheffield | 3·02 | — | 30·5 | − 2·0 | 181 |
| Birmingham | 2·82 | — | 27·1 | − 0·3 | 183 |
| Oxford | 3·56 | −0·34 | 25·2 | + 0·2 | 188 |
| Cambridge | 3·93 | −0·33 | 18·7 | − 4·0 | 158 |
| Cheltenham | 3·48 | — | 28·7 | − 0·9 | 158 |
| **Ireland—** | | | | | |
| Dublin | 3·56 | −0·62 | 28·5 | 0·0 | 188 |
| Armagh | 3·28 | −0·24 | 35·1 | + 3·2 | 201 |
| Birr | 3·31 | −0·38 | 35·4 | + 2·4 | 223 |
| Valencia | 3·68 | −0·30 | 63·1 | + 6·7 | 260 |
| **London—** | | | | | |
| Westminster | 3·18 | +0·05 | 19·2 | − 5·2 | 160 |
| Kew | 3·49 | −0·52 | 21·9 | − 2·2 | 172 |
| Greenwich | 3·63 | −0·52 | 22·4 | − 1·7 | 168 |
| Hampstead | 3·59 | — | 23·3 | — | 169 |
| Tottenham | 3·39 | — | 22·2 | — | 127 |
| South Kensington | 3·05 | — | 19·2 | — | 153 |
| City | 2·82 | −0·30 | — | — | — |

* A "—" is inserted where no average is available.

## ROYAL COMMISSION ON VENEREAL DISEASES.

AT the nineteenth meeting of the Royal Commission on Venereal Diseases evidence was given by Dr. Carl H. Browning, director of clinical pathology and lecturer in the Glasgow University.

Dr. Browning's evidence was based on the account which recently appeared in the medical press of the work done at his laboratory. He advocated the widest possible routine application of methods of diagnosis for syphilis. It would be a wise thing, he thought, to examine the blood of every patient at every hospital, and to include the blood test as one of the items in the medical examination of school children. If this could be systematically carried out for a few years it would have an enormous effect on the reduction of disease by leading to good treatment. Good work was being done by a number of corporations, including Glasgow, who were prepared at the public expense to examine specimens of blood sent to them. Early detection of the disease should be followed by free treatment. He thought that in treatment lay one of the roads to success in stamping out the disease.

Dr. Browning was convinced of the great efficacy of salvarsan; it was possible with a dose of salvarsan to do what might take a course of mercury to accomplish or what a course of mercury might fail to accomplish. He was opposed to notification of syphilis at the present time because he feared that it might deter people from coming for treatment, but he was inclined to agree with the suggestion of Dr. J. Kerr Love that some of the manifestations of congenital syphilis might with advantage be made notifiable.

STRATHCONA MEMORIAL.—A proposal is on foot for the provision of a suitable memorial in London to the late Lord Strathcona and Mount-Royal. For this purpose a representative committee, according to the *Times*, is in course of formation, and particulars will shortly be announced.

# THE LANCET.

*LONDON: SATURDAY, MARCH 7, 1914.*


## Vested Interest in Public Appointments.

THE interest that a lawyer or a firm of solicitors, a medical man or a firm of medical practitioners, may have in a public appointment is not easy to define, and therefore the filling up of any vacancies as they occur is not infrequently the origin of trouble. A lawyer has been, for example, under-sheriff or clerk to the justices with complete satisfaction to the public and to those whom he especially serves; what right has he to expect that on his retirement another partner in his business, or the successor to whom he has sold his practice, will continue to hold the same office? What is the duty of his brother solicitors in the neighbourhood if the desire to invite candidates for the post, and to discriminate between the resulting claims, is manifested by advertisement? Should they compete against their professional friend, or should they allow the possible importation of an outsider? Similarly a medical man is officer to a municipal institution or some public authority—again, let us assume, with great credit to himself and benefit to the community; when he desires to let go of the appointment, ought he to consider that another practitioner in his firm, or the purchaser of his private practice, or of a share of that practice, has a right to succeed him? There is no doubt that the view held by many solicitors and medical practitioners is that a vested interest can be to some extent created by a record of good service, for in the sales of legal and medical practices the probable succession to public appointments is often mentioned as an inducement to purchasers. But there is also no doubt that, particularly of late years, the feeling of the public has been against the creation of any vested interest in public appointments; and State, county, and municipal authorities have with much more frequency begun to seek competitors for these posts by advertisement. When this is done the ensuing action of the local solicitors or medical practitioners will be dictated by local feeling, and inasmuch as this is not always unanimous in one place, or at all common in different places, professional troubles may arise.

The appointments as medical officer to a municipal fever hospital and to a borough police force recently became vacant in a medium-sized and prosperous town owing to the retirement of the senior partner in one of the medical firms. All the medical men in the town, we are informed—and this would mean between 30 and 40 practitioners—received official notice of the vacancies, with an intimation that they could apply for the posts. The chairman of the division of the British Medical Association was thereupon approached by several of the local practitioners, and asked to advise whether application for the posts in competition against the partner of the retiring holder would be an unprofessional act, it being easily ascertainable knowledge that that gentleman desired the succession. A meeting of the local practitioners was accordingly held, the election being postponed for the purpose by the municipal authorities, when it was decided that the medical profession should support the application for the posts of the retiring holder's partner, on the double ground that he had considerable experience of the work and that he had bought from his former senior partner these and other appointments. The next event might, we think, have been anticipated. The municipal committee entrusted with the election to the vacancies decided to advertise them, and, if necessary, to import a practitioner to serve the public interest. We are glad to think that this disagreeable position is not in the least likely now to be reached, for during the week a further meeting of the local practitioners has come to a decision that public appointments can no longer be regarded by medical men as vested interests. It will be open, therefore, as far as professional considerations go, for any medical man in the borough to apply for the vacant appointments.

It is in every way satisfactory that the medical profession and the public authorities should have avoided disagreement upon a delicate issue. On the one hand, it is a legitimate grievance of a medical practitioner, who in accordance with custom has anticipated election to such posts, that he should be passed over, and in the case in question it was believed that this would occur. But, on the other hand, the municipality was placed in an impossible situation if it was represented to them that posts in their gift must pass in accordance with some scheme of purchase whereby the public does not benefit. Those who buy medical practices or medical partnerships ought to know that they cannot secure in this way the reversion to public appointments, though they can obtain a very good chance of being chosen to fill the vacancies caused by the retirement of their predecessor. We have nothing but admiration for the spirit of unity that has animated the local profession in this town—they have stood by their brother practitioner where they considered it fair to do so. But a spirit of discretion has prevailed at the right moment. A position was reached in which professional codes and public interests were made to appear antagonistic, and on every ground the matter became one for amicable settlement. A municipality must be held at liberty to choose whom they consider likely to serve the public best. As no one can for a moment suppose that such a man is likely to be obtained

by importation after advertisement, there must always be a sound basis upon which the local medical profession and civic authorities can come to an agreement.

## A New Domestic Medicine and Some Ethical Points.

ON Feb. 26th the first instalment of a fortnightly "encyclopædia" of medicine for family use was heralded by advertisements in lay newspapers and by means of leaflets inserted in cheap and popular magazines. Such a form of commercial enterprise seems no great novelty in these times, and might well be allowed to pass unnoticed, were it not for the objectionable publicity given by the publishers of this work to the names of a number of medical practitioners. As our correspondence columns show, this unauthorised advertisement of their names, qualifications, and appointments has aroused instant protests from some of those concerned. From the letters which we print this week, and from many others which we have received, it appears that the assistance given to the editor of the "encyclopædia" by medical practitioners was given on the understanding, explicit or implied, that no unprofessional use should be made of their names. The tenor of the communications which have reached us is to the effect that the various consultants lent their aid to a brother practitioner, in their private capacity, by looking over, and in some cases correcting, his written accounts of conditions of which he could not have a specialised knowledge.

The publishers, however, not being bound by any limitations, have fostered the sale of the work by extraordinary advertisements representing it to be the product of coöperation between the editor and "thirty eminent medical and surgical specialists." Worse than this, a review, written by a layman, appeared in the *Daily Mail* simultaneously with the publication of the first instalment of this encyclopædia; and this review, an astonishingly silly piece of writing, violated every canon of professional taste, mentioned consultants by name, and in some instances cordially recommended them to the public. A prefatory statement to the "Family Encyclopædia of Medicine" mentions Dr. HUGH H. RIDDLE as the editor, sets out the names of 32 physicians and surgeons from whom it is said assistance has been obtained in named subjects, and contains the following passage: "When approached by his publishers to compile a thoroughly up-to-date and instructive work on the modern scientific treatment of disease, which could be readily understood by the layman, the editor refused even to consider the possibility of attempting a task of such magnitude until he had assured himself of obtaining active coöperation and assistance from a large number of his friends and acquaintances, including the above distinguished members of the profession," who are thereupon thanked. Dr. RIDDLE'S letter in our columns regrets the unfortunate publicity given in advertisements to the names of those who helped him and admits the breach of medical ethics which has occurred. But he appears to have overlooked the fact that he has suggested in his preface that active coöperation was given him in the compilation of his encyclopædia by the 32 medical practitioners whose names are prominently given in that preface, together with their various and in some cases dignified posts attached. We can imagine that some of those who acceded to Dr. RIDDLE'S request for literary and scientific help will dislike this description of their action.

After all, it is the profession of medicine that is offended. Most of the 32 victims enjoy a position so good in the eyes of their fellow practitioners that it will be taken for granted that they have been exploited. They can afford, perhaps, to think that little harm has been done. But this is not the case. The public reading the advertisements of, and the prefatory statement to, the first issue of the "Family Encyclopædia of Medicine" will gather the impression that there is no professional objection to medical men giving their names to, and coöperating in the production of, a work directed to the public and intended to instruct the public upon matters of medical treatment. That is an impression which it is one of the duties of the General Medical Council to correct. We are happy to state that a meeting of the medical men concerned has been called to consider the concerted measures to be taken in the interests both of professional ethics and public policy.

## Princely Generosity.

IN the London press at the end of last week there was revealed to the world a secret which to some extent was no secret. For when some year ago Prince ALEXANDER of TECK, chairman of the charity, announced at a quarterly court of the Middlesex Hospital that a donor who desired to remain anonymous had given a sum of £10,000, and had later increased this to £15,000, towards the foundation of an Institute of Pathology in connexion with the hospital, a good many people said one to another—"That is BLAND-SUTTON." In moving the adoption of the annual report and accounts of the hospital at a court of governors held on Feb. 26th Prince ALEXANDER of TECK was able to read a letter publicly from Sir JOHN BLAND-SUTTON, who stated that he had preferred to remain anonymous at the outset so that in the needful preliminary work he might not seem to claim any peculiar influence, but as the chief points in the organisation of the institution have now been agreed upon by his colleagues the need for anonymity is gone. Sir JOHN BLAND-SUTTON has made one of the largest donations that has ever been made by any medical man during his lifetime to a medical cause, and we cannot sufficiently admire the simplicity and singleness of purpose which his gift

has displayed. There are no sort of conditions attached, there are no sort of stipulations. The donor knew that the scheme which he was thus prepared splendidly to support was on right scientific lines, and felt sure that its future could be arranged so that it should continue on those lines; while the scientific work of his life made him see that in these days a pathological institute to work in harmony with the clinical labours of hospital wards is absolutely needed in the cause of medical progress.

# Annotations.

"Ne quid nimis."

## THE LISTER MEMORIAL FUND.

THE committee of the Lister Memorial Fund has commissioned Sir Thomas Brock, R.A., to execute a medallion portrait of the late Lord Lister, to be placed in Westminster Abbey. This will form part of the International Memorial to commemorate the priceless services of Lord Lister to the cause of science and the alleviation of human suffering. Further subscriptions are required to enable the committee to carry out adequately the proposed scheme for the establishment of an International Lister Memorial Fund for the advancement of surgery. Among the subscriptions recently received are the following: American Surgical Association, £135; received through Dr. W. W. Keen, of Philadelphia, £35 (second donation); committee of surgeons in Holland, £125; Faculty of Medicine, University of Copenhagen, £109; members of the medical profession in Victoria (Australia), £91; medical and surgical societies in Japan, £31; Union of Swedish Hospital Surgeons, £20; Newcastle-on-Tyne committee and members of the Clinical Society, £113; City of Belfast committee, £54. Donations may be sent to the honorary treasurers of the fund (Lord Rothschild and Sir Watson Cheyne) at the Royal Society, Burlington House, W.

## THE SYNTHESIS OF FOODSTUFFS.

IT is noteworthy that while we hear on all sides of the triumphs of synthesis in the manufacture of certain industrial products no practical success has so far been obtained in producing foodstuffs by synthetic means; and yet the elementary foodstuffs are less complex in composition than, say, rubber, indigo, or the numerous aniline derivatives, and a splitting up of food substances into simpler compounds is easy. Starch, for example, the leading representative of the carbohydrates, is readily converted into oxalic acid by oxidation methods, as by treatment with nitric acid, while sugar readily yields carbon and water when warmed with strong sulphuric acid. But the reverse processes are not known; starch has not been artificially built up from oxalic acid or sugar from carbon and water. Certain attempts have been made to elaborate foodstuffs out of the simple materials carbon, water, and nitrogen, but with results of no practical significance. No laboratory has yet been able to reproduce the synthetic methods of the plant or animal. With all his wonderful constructive successes the chemist has not yet made bread or any constituent of it on a commercial scale from the elements which compose it. Starches, proteins, and fats in significant quantities are so far exclusively the products of plant and animal activities. Now and again it has been announced that a step forward towards synthetic foodstuffs has been made by employing chemical or electrical agencies, but such experiments have led to no practical development. Later it has been stated that the synthesis of certain organic compounds can be effected by photo energy. It is confidently asserted that the sugars can be built up from carbonic acid gas and water by exposing these simple compounds to the action of ultra-violet light. We have already referred to the interesting observation that the ultra-violet rays are capable of starting chemical changes analogous to those produced by ferments or enzymes. In this case it is clear that biological action has been dispensed with, so that we need not be without hope that the so-called vital agencies may prove after all not to be essential to the production of foodstuffs. It is further remarkable that the ultra-violet rays are capable of decomposing carbonic acid, inasmuch as chlorophyll, under the influence of the sun's rays, effects the same process in the plant. When we come to understand in more definite terms the chemistry of the cell the chances of producing foodstuffs by synthesis will unquestionably be improved.

## THE TREATMENT OF LEPROSY BY CHAULMOOGRA OIL.

WE commented in THE LANCET of Sept. 27th, 1913, on two cases of apparent cure of leprosy by injections of chaulmoogra oil combined with camphor and resorcin given hypodermically. These cases were reported by Dr. Victor G. Heiser, from the San Lazaro Leper Hospital, Manila. It was then stated that there were in the same hospital at the time of writing "a number of other cases" under treatment which had for varying periods presented only negative evidence as regards leprosy, though all of them exhibited typical lesions when the treatment with chaulmoogra oil was begun. Dr. Heiser now[1] reports the discharge of two of these cases after having been free from leprosy for two years. In the first two cases reported the conclusions to be drawn were somewhat obscured by the fact that immediately on their admission to hospital both patients received vaccine treatment, so that it was impossible to determine what share, if any, this may have had on the subsequent improvement. The present cases, however, received no vaccine treatment. As in the former instance, both cases were mild. In both there were typical leprous macules and the diagnosis was confirmed by microscopical examination. The first patient began treatment with chaulmoogra oil by the mouth, in 10-drop doses three times a day, on Jan. 7th, 1911, but owing to gastric intolerance weekly hypodermic injections of the chaulmoogra oil, camphor, and resorcin formula were substituted on Feb. 15th. The dose began with 1 c.c. and was increased gradually to 10 c.c. by April 20th, when it was gradually decreased to 1 c.c., to be again gradually augmented to the maximum dose. Treatment was discontinued from Oct. 15th, 1911, when examinations

[1] Public Health Reports of the U.S. Public Health Service, vol. xxix, No. 1, Jan. 2nd, 1914.

of the patient proved microscopically negative, to Jan. 7th, 1913. Then it was recommenced, raised to the maximum, and again decreased. On Oct. 30th, 1913, microscopical evidence of the disease having been absent for two years and there being no clinical evidence of the disease then existing, the patient was discharged on probation as apparently cured. The other case was similar. The treatment by injection was begun on May 4th, 1911, the maximum dose of the injection reached, however, being only 5 c.c., as attempts at larger doses caused severe palpitations and præcordial distress. The macules began to improve a few weeks after treatment was begun, and had entirely disappeared by August 25th, 1911, since which time all examinations have proved microscopically negative. This patient was discharged on probation on Nov. 4th, 1913, being apparently free from all signs of the disease. These two further cases materially strengthen the argument against the cases being instances of the unaccountable spontaneous disappearance of the disease that does undoubtedly occur at times. As we understand that there are still other cases under treatment increasing interest will be evinced in this cumulative evidence of its value. A letter appears elsewhere in this issue of THE LANCET on the question of the identity of chaulmoogra oil.

## GOLDSMITH'S MEDICAL CAREER.

THE proposal to set up in London a replica of Foley's fine statue of Oliver Goldsmith, which stands with that of Edmund Burke at the gateway of Trinity College, Dublin, should serve as a reminder that the great Irishman struggled in practice as a physician in London, and that he suffered many disappointments and privations before his final success in literature was achieved. Goldsmith reached London in February, 1756, after a somewhat mythical tour in France and Italy. He was then in a state of utter destitution, and with difficulty, we must suppose, managed to become a chemist's assistant on Fish-street Hill, near the Monument. Later on, through the kind help of a Dr. Sleigh, he set up as a physician upon the opposite side of the river. Here he told a friend that he "was doing very well," but he was in a tarnished dress and a shirt a fortnight old. Reynolds once told an anecdote of the care with which Goldsmith at this time carried his hat so as to hide a patch in his coat. He tried all kinds of other employments, from that of usher to that of printer's reader, but returned as a *pis aller* to the medical profession, for which he had so little gift and for which he was at this time not "qualified" as the word is now understood. In December, 1757, he writes to his brother-in-law Hodson that he was making shift to live by a "very little practice as a physician, and a very little reputation as a poet." In August, 1758, he wrote three letters to friends in Ireland, begging them to get him subscribers for his forthcoming book, "On the Present State of Taste and Literature in Europe." The MS. of one of these letters was reproduced in 1858 by the modern representative of Griffin, Goldsmith's original publisher. It probably has often been torn from the collected edition of Goldsmith printed by Griffin in 1858, and has deceived the unwary collector of autographs. In this letter, which is addressed at great length to Mrs. Lawler, *née* Contarine, the cousin with whom poor "Goldie" had been in love in Ireland, he gives an account of his penury, none the less poignant for its tone of persiflage. He intends, he says, to adorn his room with "maxims of frugality." "These," he continues, "will make pretty furniture enough and won't be a bit too expensive, for I shall draw them all out with my own hands, and my landlady's daughter shall frame them with the parings of my black waistcoat. Each maxim is to be inscribed on a sheet of clean paper and wrote with my best pen, of which the following will serve as a specimen. 'Look sharp. Mind the mean (*sic*) chance. Money is money now. If you have a thousand pound, you can put your hands by your sides and say you are worth a thousand pounds every day of the year. Take a farthing from an hundred pound, and it will be a hundred pound no longer.' Thus which way soever I turn my eyes they are sure to meet one of those friendly monitors, and as we are told of an actor who hung his room round with looking-glasses to correct the defects of his person, my apartment shall be furnished in a peculiar manner to correct the errors of my mind." The sale of his book was to pay for his passage to Coromandel, where, through his friend Milner, he had obtained the position of physician and surgeon to a factory. His practice was to bring him in £1000 per annum, but evidently he was expected to qualify first. He must have been familiar with Smollet's description of an examination at Surgeons' Hall in "Roderick Random," but undeterred by this he presented himself before the examiners and was disqualified. The examiners were probably Messrs. Mark Hawkins, Fullagar, Nourse, Girle, Singleton, and Roul. The entry in the Royal College of Surgeons "Examination Book" under date Dec. 21st, 1758, states that before a Court of Examiners, held at the theatre, James Johnson was "appointed apprentice to Mr. Carson, Thomas Meggs qualified for surgeon to a regiment, James Bernard Mate to an hospital, Oliver Goldsmith, found not qualifyd for Do." At the same court four naval surgeons were also appointed. The poet, we now know, afterwards obtained the M.B. of Dublin (probably before 1761), and of Oxford in 1769.[1] His medical career in London, however, seems to have ended with his failure at the Royal College of Surgeons of England. He became famous in literature, even at a time when he was playing the flute to the ragged children at the foot of Breakneck Steps leading to his lodgings in Green Arbour Court. Sixty-eight pages are now devoted to his works in the British Museum Catalogue.

## ENLARGEMENT OF THE SPLEEN IN EGYPT AND ITS SURGICAL TREATMENT.

IN the *British Journal of Surgery* for January there is one contribution possessing an interest that is wider than that of a purely surgical article. Professor Owen Richards, of Cairo, reminds us of the frequent occurrence of a very interesting form of splenomegaly among Egyptians, and gives a summary of the results achieved in 22 cases by splenectomy. The clinical features of this disease are such as to range it alongside of the syndrome usually described as Banti's disease, but it is in itself so definite a malady that Professor Richards prefers to retain for it a separate title—Egyptian splenomegaly. All of his 22 patients, with three exceptions, were males, and all belonged to the labouring class. Nearly always the symptom that brought them to seek advice was abdominal enlargement, which eventually reaches considerable proportions, as the admirable photographs

[1] THE LANCET, Feb. 7th, 1914, p. 388.

illustrating the article prove. There is usually a history of fever in attacks which immediately precede the splenic enlargement. The other constant features of the disease are anæmia and cirrhosis of the liver often associated with ascites. With four exceptions, all the patients came for admission to hospital during the hot season. It is the hepatic lesion, with the malnutrition which it induces, that leads eventually to a fatal issue. Hæmatemesis is rare. The pathological change in the spleen, portrayed in some excellent microphotographs by Professor A. R. Ferguson, is a general hyperplasia, while the hepatic lesion is a monolobular cirrhosis. The probability of an infective origin is so obvious that this causation may be assumed, even though no parasite or bacterium has as yet been incriminated. Drug treatment, with quinine and salvarsan, has been unsuccessful. Of the 22 cases subjected to splenectomy, 4 ended fatally before the patients left hospital; in 2 of these extreme ascites was present, and this, in Professor Richards's opinion, constitutes a definite contra-indication to splenectomy. In 2 cases it was found impossible to complete the operation, but both patients recovered sufficiently to go home, one of them dying six months later. Of the others, the results in the first 10 cases are specially emphasised. One died five months after operation, the cause being unknown; 3 others could not be traced; and 6 were alive and well from nine months to two and a half years after operation. "Broadly," says Professor Richards, "the cases most suited for operation are those with big spleens and big livers, in which the disease is severe and progressive, but which have not yet reached the stage of ascites." Patients should be prepared for operation by a preliminary course of rest in bed, treatment of ankylostomiasis, and full diet, with drugs to counteract the anæmia. Operations to cure the ascites have without exception ended in disappointment. A full account of operative technique is given. The average weight of the excised spleen is about 3 lb. The chief operative risk is hæmorrhage, best avoided by systematic division of individual vessels between ligatures.

## GREEK AND ROMAN MEDICINE.

THE present year has seen already the issue of two works in the English tongue dealing with the history of medicine—the one a survey of the whole subject, from the pen of Dr. Fielding Garrison, principal assistant librarian of the Surgeon-General's Office, Washington, a monumental work; and the other a small book dealing only with Greek and Roman medicine, by Dr. James Sands Elliott, of Wellington, New Zealand.[1] To give a full account of medicine during even this comparatively short period of history (say, 2000 years) would entail the writing of a large work, and Dr. Elliott has wisely attempted only a sketch of the subject. By an inversion of history, of which he is fully aware, he begins with early Roman medicine and then goes back to Greek medicine, of which he gives an account down to the time of Serapion, of Alexandria, circa 280 B.C. The course of Roman medicine is then resumed and continued as far as a practitioner of the sixth century A.D.—namely, Paulus Aegineta, who was the last important member of the great school of Alexandria. If we may judge by most extant literature on the subject the art of medicine and its practitioners were not held in high estimation in Rome. Medical men were nearly all foreigners and mainly Greeks, hence the abuse which Cato and the elder Pliny poured upon them. It must be allowed that in many cases the medical man was very ignorant and illiterate, and that often the line between the quack and the trained practitioner was very narrow. But the coarse insinuations of Martial, Juvenal, and Petronius against the profession are probably no more true pictures of it as a body than the diatribes which used to appear in the political press about medical men in the early days of the Insurance Act. Seneca, in his treatise "De Beneficiis," writes with real good feeling of the medical man, and practitioners like the Stertinii enjoyed the confidence of the Cæsars and made enormous fortunes, though, of course, this latter fact does not necessarily mean that they were able practitioners, for quacks made as much or even more money than educated physicians in the heyday of Roman luxury. In his account of early Roman medicine Dr. Elliott speaks of Livy as saying that Numa Pompilius was struck by lightning and killed as the result of experiments in physical science, and that these experiments have been conjectured by some to have been electrical. This is an error; it was Tullus Hostilius and not Numa whom Livy describes (apparently on the authority of L. Piso) as being killed by lightning, and the "experiments" were religious conjurations which he was trying to perform after a formula left behind by Numa for bringing down lightning from heaven. Rain bringers or lightning bringers are found among savage medicine men to-day, and the story of Numa, together with those of Salmoneus and Remulus Silvius, the last two of whom were killed in the same way as Tullus, are evidently traditions of this kind of magic. It is not a wholly impossible point of view to suggest that these stories arose from there having been some daring investigator in primitive times who tried something analogous to Franklin's well-known experiment on atmospheric electricity with the kite. One of Franklin's followers tried the same experiment and was killed. The Etruscans studied lightning with assiduity, and Numa, who was a Sabine, was traditionally learned in natural philosophy; so he may have succeeded where others failed. This, however, is speculation, whereas Dr. Elliott, in his interesting little work, has collected many facts of value to the medical historian.

[1] Outlines of Greek and Roman Medicine. By James Sands Elliott, M.D., Ch.B. Edin., editor of the New Zealand Medical Journal. London: John Bale, Sons, and Danielsson, Limited. 1914. Pp. 165. Price 7s. 6d. net.

## INJURY TO THE DESCENDING PORTION OF THE DUODENUM DURING REMOVAL OF THE RIGHT KIDNEY.

IN the *Journal of the American Medical Association* of Jan. 31st Dr. William J. Mayo has called attention to a serious injury to the descending portion of the duodenum—apparently previously unreported—which may occur during removal of the right kidney if infiltration about the pedicle of the kidney has caused close adhesion to the duodenum. It may be remembered that the duodenum in its descending course overlies the pedicle of the right kidney and a considerable portion of the inner part of the lower half of that organ. As this portion of the duodenum is retroperitoneal and more or less fixed, the accident is readily understood. During right nephrectomy

the pedicle is loosened until it can be well surrounded with the fingers, clamped with forceps or tied, and as long as this method is followed the duodenum will not be injured. But when, on account of infiltration, such a pedicle cannot be formed the vessels may be torn with a resultant gush of blood, or, after removal of the kidney, the pedicle may retract from the forceps or ligature with sudden hæmorrhage. In the attempt to check this by grasping the vessels with forceps having strong biting jaws the duodenum may be seized. As a rule, the result is not manifest for several days. The injured part of the duodenum becomes necrotic and a duodenal fistula ensues. Dr. Mayo has known of three such cases. The first occurred many years ago when he was assisting a surgeon who was following nephrotomy by nephrectomy. Heavy biting forceps were left on the pedicle. On the fourth or fifth day began a copious discharge of biliary and pancreatic secretions and of food almost as soon as taken. The patient rapidly became exhausted and died in two weeks. In the second case a carcinoma of the renal pelvis was being removed, the result of irritation by a branched stone. The pedicle was extremely rigid from carcinomatous infiltration. In the attempt to remove it the vessels were torn across. With considerable difficulty they were caught by heavy toothed forceps, which were left *in situ*. On the fifth day a duodenal fistula was manifest. Biliary and pancreatic secretion and intestinal juices were passed in large quantities. The patient, already in a serious condition, developed acute nephritis in the remaining kidney and died from asthenia on the tenth day. The necropsy showed a large fistulous opening in the descending portion of the duodenum. The third case was one of duodenal fistula following nephrectomy and was seen in consultation. The pedicle had been infiltrated with inflammatory products and the kidney had torn across. The duodenum was injured in the application of heavy forceps. The fistula was small at first but gradually enlarged, and the patient died two weeks after operation. A feature of all the cases was great irritation of the skin by the escaping secretions. In one case this set up eczema, which rapidly spread to a great part of the body. Another structure that is even more frequently injured in the same manner is the vena cava. When the renal pedicle is infiltrated the renal veins may tear away from the vena cava and the latter may be grasped in the forceps used to stop the bleeding. Since the occurrence of the second case Dr. Mayo has avoided the use of forceps in the first attempt to control the bleeding; he finds that they are seldom necessary. The fingers are so sure a means of temporary hæmostasis that they should be relied on and the forceps used only to clamp the vessels after they have been caught. With an adequate incision for the removal of the kidney, Dr. Mayo considers that injuries to the duodenum or failure accurately to secure the vessels will seldom occur. In two classes of cases, however, injuries to the duodenum, as well as to the vena cava, are liable to occur. When fixation and shortening of the pedicle takes place as the result of inflammation, usually in cases of pyonephrosis with stone, and especially following nephrotomy for such a condition, the attempt to remove the kidney in the ordinary manner renders accidents in securing the pedicle not infrequent. Tuffier's subcapsular nephrectomy is the proper procedure. In removal of carcinoma of the renal pelvis injuries to the duodenum are liable to occur. Here subcapsular nephrectomy would be inadequate, and the duodenum will be endangered by the most expert and careful surgery. When it becomes manifest that the accident to the duodenum has occurred Dr. Mayo would, before the patient is exhausted, make a transperitoneal attack on the fistula, lift the descending duodenum from its bed, suture the opening, transplant a flap of peritoneum or omentum across the suture line, and finally perform jejunostomy for temporary feeding purposes.

## THE ALLEGED SPREAD OF LEPROSY IN THE UNITED STATES.

FROM time to time waves of alarm respecting leprosy sweep over certain countries and create considerable disquietude in the minds of the public. There has been evidence of late, for example, in France concerning this question, and in official circles there it has been seriously debated whether an active campaign against the disease should not be undertaken forthwith under Government direction, more especially in regard of imported cases.[1] In the United States of America the same uneasiness respecting the importation of leprosy has recently been manifested, and our contemporary the *American Journal of Tropical Diseases and Preventive Medicine*, the official organ of the American Society of Tropical Medicine, has voiced this fear in an editorial published in the last issued number (Vol. I., No. 6). The writer of this, Dr. Isadore Dyer, one of the editors, in discussing the duty of the Federal Government regarding leprosy, deplores the lack of interest displayed by Members of Congress upon the subject. It is true that these members will promptly, when requested, sanction the expenditure of comparatively large sums of money for the treatment and prevention of the disease as well as for its experimental investigation in the American colonies and tributary islands; but when similar demands are made for funds to prevent the spread of the disease at home and for the scientific study of its etiology and treatment, the applications are met with apathy and indifference and the subject is allowed to drop. Only three States—namely, Louisiana, Massachusetts, and California—have so far adopted methods for the control of lepers by the State, although in nearly one-third of all the States comprised within the Union leprosy is known to exist in varying amounts; in some of them the need for State control is said to be very urgent. Fears are expressed that if the Federal Government does not intervene to deal satisfactorily with leprosy the danger will before long become universal. The United States are in frequent communication through shipping with countries where leprosy is widely prevalent, and inquiries have shown that in some ports of the United States foreign lepers have little difficulty in effecting a landing and passing thence into the interior, where they are soon lost sight of, but where they may spread the infection unobserved. This source of danger is stated to be rapidly increasing. Leprosy is known to be common in some of the foreign possessions and dependencies of the United States—e.g., the Hawaiian Islands, the Philippines (where at present some 5000 lepers are under supervision), and Porto Rico. Central America and the whole of the west coast of South America are reported to be full of the disease. Colombia, for instance, of

[1] THE LANCET, Feb. 14th, 1914, p. 401.

which the Panama Canal Zone once formed a part before being taken over by the United States, was the seat of an inquiry recently, which revealed the fact that no fewer than 20,000 lepers existed in that country. According to Dr. Dyer, the United States is the only Government of any importance that does nothing towards the treatment and prevention of leprosy within its own borders at home, and he therefore urges Congress to deal with the matter before it is too late. We think that perhaps Dr. Dyer and his supporters are inclined to take a too gloomy view of the situation. It is believed at the present time by many experts that leprosy is only feebly contagious, and that for the propagation of the infection a very unhygienic environment is necessary. In Europe the disappearance of the disease has been associated with the removal of overcrowding of dwellings, the keeping of houses and persons in a cleanly condition, and the securing that human food shall be good in quality as well as sufficient in quantity, and if cases of leprosy are imported they must be treated under conditions of strict surgical cleanliness. When these points are carefully attended to there seems little likelihood that leprosy will spread, more especially in countries which possess efficient sanitary administration.

## INFECTION WITH THE BOVINE TUBERCLE BACILLUS.

THE communicability of the bovine tuberculous viruses from animal to man has been definitely proved, but the frequency with which such an infection takes place still gives rise to much difference of opinion. The majority of observers maintain that pulmonary tuberculosis is generally due to the human bacillus, being rarely caused by the bovine type, but that tuberculosis of the glands and joints is relatively more frequently brought about by the bovine virus. Evidence is now accumulating that when the joints (including the spine) are affected the human bacillus is most commonly concerned. With regard to glandular tuberculosis, the results obtained by different investigators have varied, but in this case again the predominant opinion appears now to be that the human bacillus is more often the causal agent. In the *British Medical Journal* of Jan. 17th of this year Dr. A. Philp Mitchell (Edinburgh) published an interesting "Report on the Infection of Children with the Bovine Tubercle Bacillus." After giving a description of the technique which he has employed for the cultivation of the bacilli and the methods of distinguishing the types of bacilli, he lays down the conclusions at which he has arrived. His material was derived from 72 consecutive cases of tuberculous cervical glands in children; of these 38 resided in Edinburgh and 34 came from neighbouring country districts (within a radius of 30 miles). Out of these 72 cases, in 65 instances (90 per cent.) the bovine bacillus was present, and in 7 cases (10 per cent.) the human bacillus. This is a remarkable result, and Dr. Mitchell acknowledges that it is widely different from that obtained by investigators in other countries, but he maintains that it can be verified by the recognition of several correlative factors. These are: (1) the age of the patients (he believes that the importance of examining a large number of consecutive cases of tuberculosis of the cervical glands in young children has not been sufficiently insisted on); (2) in none of the cases of bovine infection was a family history of tuberculosis noted; (3) the almost universal practice in Scotland of feeding children with unsterilised cow's milk; (4) the great prevalence in Scotland of tuberculosis in dairy cows, and in conjunction with this he draws attention to the present very inadequate veterinary inspection and the ignorance of the dairy farmers in matters relating to bovine tuberculosis; (5) the fact that about two-thirds of the Edinburgh daily milk-supply comes from small byres situated in rural districts round the city, where there is practically no supervision. These are important observations, the significance of which would be rendered much stronger if the suggestions are in the future corroborated by other workers, for if infection of the cervical glands in children is frequently acquired from a bovine source, legislation is imperative to protect the children, and Dr. Mitchell emphasises his contention that until such measures are obtained cow's milk should always be sterilised before being given to children. It will be interesting to see whether these conclusions are contested or supported by other investigators. They require most careful consideration.

## ACUTE RHEUMATISM LOCALISED TO A PARALYSED LIMB.

IN a recent annotation[1] we called attention to a case reported to the Société Médicale des Hôpitaux of Paris in which chronic periarthritis of the hand followed herpes zoster of its dorsal aspect and of the forearm. From the beginning the patient complained of stiffness in the finger-joints. When the pain ceased the stiffness remained. After two years there was some improvement, but the hand could not be shut. Other French cases—arthropathy of the hand localised to the area supplied by the affected nerve root and two cases of zona of the upper limb followed by lesions resembling arthritis deformans—were mentioned. In a letter published in our columns on Jan. 10th last Dr. P. W. Latham stated that these cases seemed to illustrate and confirm in a remarkable manner the view, which he had held for many years, that "the progress of arthritis deformans is associated with and dependent upon irritative or destructive lesions of the anterior cornua of the spinal cord, the lesions being especially marked in the cervical and lumbar enlargements." He thought that in some of the cases of herpes zoster the irritation caused by the changes in the ganglion cells of the posterior roots might give rise to changes in the ganglion cells of the anterior horns and in the anterior nerve roots. In this way the nutrition of the muscles, bones, and joints, over which the ganglion cells of the anterior horns are supposed to exercise a controlling influence, would be modified and rheumatoid arthritis produced in the limb to which the affected nerve was distributed. At a meeting of the Société Médicale des Hôpitaux of Paris on Jan. 29th M. Georges Guillain and M. Jean Dubois reported a case which bears out the general doctrine of the dependency of arthropathy on nerve influence all the better as it was of quite a different kind, for there was not nerve irritation, but the withdrawal of nerve influence which evidently favoured the attack of the microbe of acute rheumatism. The patient was a man, aged 50 years, who had suffered from acute rheumatism 15 years previously. He fell and dislocated his right shoulder. Reduction was performed at the Necker

[1] THE LANCET, Nov. 29th, 1913, p. 1560.

Hospital. Paralysis, most marked in the hand but involving the whole limb, followed. The only sensory trouble was a slight band of hypoæsthesia at the external border of the arm. There was a partial reaction of degeneration in all the muscles, increasing towards the extremity of the limb. Eight days after the accident acute polyarticular rheumatism occurred and was localised to all the fingers of the right hand and the right elbow. The joints were swollen and very painful, and the overlying skin was œdematous, preventing any passive movement. Under aspirin the attack passed off in ten days. The case is an excellent example of the localisation of an infection in an area of which the nerves are injured.

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AT a meeting of Fellows of the Royal College of Surgeons of England held in Manchester on Feb. 25th, it was resolved that it is advisable that a member of the Manchester Medical School should be a candidate for the next ensuing vacancy on the Council of the Royal College of Surgeons of England, and it was agreed to nominate Professor W. Thorburn, senior surgeon to the Royal Infirmary.

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THE Schorstein Memorial Lectures at the London Hospital Medical College will be delivered on Thursdays, March 19th and 26th, at 4.15 P.M., in the anatomical theatre, by Dr. Henry Head, F.R.S., physician to the hospital, who will take as his subject the Clinical Aspect of Syphilis of the Nervous System. Members of the medical profession are cordially invited to attend.

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AMONG the 15 candidates who have been recommended by the Council of the Royal Society for election as Fellows are the following members of the medical profession: Dr. Arthur Edwin Boycott, professor of pathology in the University of Manchester; Dr. Henry Hallett Dale, director of the Wellcome Physiological Research Laboratories; and Dr. Diarmid Noël Paton, Regius professor of physiology in the University of Glasgow.

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IT has now been settled that the dinner to Surgeon-General Gorgas and his assistants will be held on Monday, March 23rd, at 8 P.M., at the Savoy Hotel. We hope to learn that a good muster of the medical profession will take place on the occasion. The work done by Surgeon-General Gorgas and his staff in the Sanitary Department at Panama is famous throughout the world, and ought to receive from the medical profession of this country an enthusiastic endorsement.

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UNIVERSITY OF LONDON.—Dr. F. H. Thiele, lecturer in bacteriology and immunity at University College Hospital Medical School and pathologist to University College Hospital, and Dr. Bernard Hart, lecturer on mental disease at University College Hospital Medical School, have been elected Fellows of University College. Dr. Peter Thompson, professor of anatomy in the University of Birmingham, has been elected a Fellow of King's College.—The twenty-first anniversary of the Union Society of University College will be celebrated on Thursday, March 19th, when the Foundation Oration will be delivered at 8.30 o'clock by Sir Edward A. Schäfer, F.R.S., professor of physiology in the University of Edinburgh, and first president of the society. The subject of the oration is Certain Desirable Adjuncts to a University Education. Academic dress will be worn, and there will be a reception and concert at 9.30 P.M.

# ANNUAL REPORT FOR 1912 OF THE CHIEF MEDICAL OFFICER OF THE BOARD OF EDUCATION.

READING the last report of Sir George Newman, chief medical officer of the Board of Education, the mind turns for comparison to a general planning and directing the advance of an army. In the beginning come skirmishing paragraphs dealing with details in a manner designed to produce their effect but followed by a series of 16 solid divisions, each treating of some special section of the work, detailing the way in which the heavy fighting is done. In the "Conclusion" the general surveys the course of events, speaks of the issue of the fighting, and of the future. The whole effect of the report is one of simplicity and lucidity, which is attained not only by the presentation of facts but by the suppression of others which can be treated at another time. Yet so comprehensive is the scope of the report that we realise that the subject of school furniture gets hardly a mention with a shock of surprise.

In the "Conclusion" Sir George Newman says that "Medicine is the servant and not the master of education," but his conception of service is that of a great leader serving a great purpose. Medical inspection is "contributory to the larger business of education, it is also closely bound up with the work of public health," which again is only one part of "the apparatus of national welfare." Even the choice of words, "larger business of education," "*apparatus* of national welfare," shows the mind thinking in terms of big issues. We could wish that this way of handling big issues could be transferred more universally to the school medical service in all parts of the country. In some areas these conceptions do prevail and the work is moulded on them, but in others, those, for instance, from which are sent up the "almost worthless" reports, as the Board of Education stigmatises them, the medical inspection work is looked at from a narrow parochial standpoint. Let those parochial areas see themselves as they are, parts of the nation, and the work they are doing (monotonously routine although much of it may be) as part of a great national work, and not only will they see more truly but do their work better. As Sir George Newman says, "the local education authorities who take the widest and truest view of school hygiene and its responsibilities and possibilities are likely to secure not only the best medical officers but the most capable and enlightened service from those officers." Reference is also made to the value of "a reasonable variety of work" and "ample opportunities for research and inquiry," and local education authorities are urged to encourage their officers to undertake special practical inquiries.

All the 317 local education authorities have now in being machinery of a more or less complete kind for the medical inspection of the million and a half children it is annually necessary to provide for out of a school population of six millions. 1111 school medical officers and 742 school nurses are employed in the work, the teachers, without whom the work could not go on, coöperate heartily for the most part, while there is a large army of voluntary and associated workers more or less directly concerned in inspection and "following-up" work with reference to treatment. 241 of the education authorities have appointed the school nurses above mentioned, and in some cases they also act as school attendance officers.

### *The Province of the School Medical Officer.*

Medical inspection is at present compulsory for the groups of "entrants" and "leavers" only, but in 1915 the Board of Education will demand inspection of an intermediate group. This intermediate age-group inspection is already carried out by 120 education authorities, and some have even examined all the children in their schools. In addition 122 secondary schools, about one-eighth of the total number upon which grant is paid, have been inspected. Children selected by teachers or others on account of some presumed defect for examination as "specials" account for another considerable addition to the routine, as do the special inquiries also. Of these latter, 38 examples are given (many of which have already been called attention to in reviews of the report

of school medical officers published in THE LANCET), and cover subjects so diverse as night sweating, nervous children, pigmentation of eyes and hair, the physical conditions associated with backwardness, heart affections, the relationship between enlarged tonsils and dental caries, the temperatures of school children, the fitting of school children's spectacles and the condition in which they are kept, ringworm "epidemic" schools, vision and vision-testing, and the health of red-haired children.

The field of operations of the school medical officer is thus a wide one, and one to which adjacent territory must in the nature of things be annexed as time goes on. The scope of school medical inspection itself widens, and to inspection must be added questions having reference to treatment, sanitation of schools, special schools for mentally and physically defective children, the teaching of hygiene and physical training, the feeding of school children, and employment during and after school life; for all of these are matters "so closely related to and so vitally connected with the physical condition of the child that it is desirable in all educational areas that they should be referred more or less directly to the school medical officer for advice." Sir George Newman also enumerates 15 Acts of Parliament upon which the school medical officer should be prepared to advise his authority in so far as they affect children's health; they range from the Public Health Act, 1875, to the Mental Deficiency Act, 1913, and include the Factory and Workshop Act, 1901, and the Labour Exchanges Act, 1909.

It is satisfactory to note that as the scope of the work increases the understanding of it by the general public and the coöperation with it by the parents of elementary school children improve on the whole. There are now extremely few "objections" to medical inspection, although the number of parents who attend varies much in different places. The report suggests that this is dependent upon the cordiality of the invitation and many other circumstances. The percentages (approximate) of parents attending vary from 10 per cent. in Denbighshire and Staffordshire to 76 per cent. in Berkshire and 81 per cent. in Hertfordshire, from 27 per cent. in East Ham to 75 per cent. in Exeter and 91 per cent. in Wolverhampton. On the value of parents attending at inspections and getting a medical opinion first hand there is probably not much doubt, but the possibility of this will depend on the nature of the parents' employment and distance of the school from the home among other factors.

*The Private Practitioner and the School Medical Officer.*

An interesting section reviews the relationship of the private practitioner and the School Medical Service and makes clear the attitude of the Board. It is shown that this service includes the work of the general practitioner, "though always within the ambit of the organisation for the administration of which the school medical officer is and must be responsible." The parts played by the general practitioner include part-time medical inspection, treatment in private practice of conditions discovered at inspection, treatment at upwards of 300 hospitals, and a small amount of treatment under the Poor-law. In addition treatment at school clinics has been given by 112 part-time medical officers and 70 dentists who were engaged in private practice also in the same areas; this, of course, in addition to school clinic treatment by whole-time officers. Private practitioners further come into the school medical organisation as medical officers of training colleges, of special schools, and as nominated under the Elementary School Teachers' (Superannuation) Act. While the school medical officer must necessarily be held responsible for the general supervision of the organisation, he does not interfere with the actual details of treatment nor come between the private practitioner and his patient, but he or his assistant inspects the child and in one way or another brings the patient to the doctor.

*The School Clinic.*

An increasingly important part is played by the school clinic, and with the increase of these institutions there goes a corresponding increase in the efficiency of treatment of school defects as a whole. There are now 97 authorities which provide medical treatment themselves, and 61 of these include dental treatment. London has 23 treatment centres and provides for 84,000 children annually. The County of Essex has eight centres, four being dental clinics; Birmingham has seven centres, Newcastle-upon-Tyne has three clinics, and Leicester has two. But the school clinic is not the only treatment agency the efficiency of which is being increased, and is by no means the only agency considered by the Board of Education in allocating treatment grants. For, as Sir George Newman points out, when the Board take into consideration the scope, character, and efficient working of the authority's provision and arrangements for securing the medical treatment of cases requiring it, this does not necessarily mean that the authority should themselves provide treatment. "*The essential thing is that the ailing child should obtain adequate treatment.*" (The italics are in the report.) However this result is efficiently secured it must be good. But if when all arrangements have been made any considerable proportion of the children remain untreated, it will be for the authority themselves to consider the necessary treatment.

Apart from school clinics other arrangements for treatment may be grouped under: (1) Employment of school nurses; (2) systematic provision of spectacles; (3) organised treatment of ringworm; and (4) contributions to hospitals. 241 education authorities employ school nurses, 101 provide spectacles, and 37 contribute to hospitals. In considering grants for treatment the general efficiency of the school medical service as a whole is also considered.

The total number of authorities to whom a grant was made was 229, 45 counties, 65 county boroughs, 84 non-county boroughs, and 35 urban districts; the amount of the expenditure on which grants were paid was £78,016 15*s.* 2*d.* Of this £23,985 14*s.* 1*d.* were for medical treatment, £49,934 4*s.* 6*d.* were for ancillary work, and £4,096 16*s.* 7*d.* for the cleansing of verminous children. Among the largest grants made by the Board were, London £12,958 8*s.* 10*d.*, Sheffield £1502 4*s.* 6*d.*, Derbyshire £1315 17*s.* 11*d.*, and Bradford £1000 6*s.*, and the amount of the grant in some cases formed a very substantial part of the total expenditure.

*The Cleanliness of the Child.*

A large share of time and thought is still taken up with the consideration of verminous conditions, and the conscience of many parents has still to be awakened to the fact that filthy conditions are also very unwholesome. Nevertheless, substantial progress is being made. The London County Council cleansing scheme, which has served as a model to other authorities, is considered and described at some length. The number of cleansing stations now in use in London is 21, and the increase in the scope of the work is indicated in the figures for 1911, when 251,592 children were examined, and in 1912, when 630,359 were dealt with. In some areas the percentage of verminous children has fallen in the last five years from 22·0 to 12·75 (Berkshire), from 24·9 to 2·3 (Aberdare), and in the last four years from 31·1 to 5·1 (York). In a few areas increase has been noted, but this is ascribed to increased vigilance. In the Isle of Wight Dr. Walker has published a list of schools "in order of merit," *pour encourager les autres.*

Shower-baths are beginning to be introduced into the schools, but the provision is very slight in England as compared with some foreign countries. Only 20 education authorities (out of 317) possess school baths. Considering how difficult it is to teach the young of the upper and middle classes to be clean, with the aid of bathrooms and servants, and considering that the "morning tub" is popularly believed to be one of our national subjects of conversation, it is a little curious that the school bath, in which cleanliness could be taught, does not make more headway.

*Defective Vision.*

One of the ways in which school hygiene can be of most service is in preventing avoidable visual defect arising from causes within the control of the school organisation. No more damning commentary on the schools of this country could be penned than the sentence in this present report, which states that "the examination by Snellen's test-types is still hampered by bad lighting in the case of many schools. In Cumberland and elsewhere it appears that in a great number of schools the illumination is so poor that it has been impossible to test the vision of children within the school." In schools where the lighting is thus defective the eyesight of the children is being destroyed by a compulsory education from which they cannot escape. It is earnestly to be hoped that the Board of Education will use their powers to the full to bring this state of things to an end at the very earliest possible moment.

An account is given of an investigation into 1907 cases of

visual defect by Mr. N. Bishop Harman in London. The investigation was carried out at the school clinic at Belgrave Hospital for Children, Clapham-road. 1670 cases were actually available for classification, and of these 781 were boys and 889 were girls. Of the total number (about) 80 per cent. were refraction cases and (about) 20 per cent. diseased conditions of the eye, and the figures give a useful index of the proportions any education authority may find itself called on to treat. Mr. Harman divides the 1420 refraction cases into eight groups, which can be considered as belonging 66 per cent. to the section of hypermetropia and 34 per cent. to that of myopia. Of the total cases, 16·2 per cent. (231 cases) had an error of refraction of 5 dioptres or more, 14·0 per cent. (199 cases) suffered from squint, 166 of these being convergent squint. The importance of good lighting (both natural and artificial) is considered at some length, and an important point brought out with regard to the necessity for resting the eyes by far vision. For the purpose of securing this rest the windows should be brought down to a level at or near that of the children's heads so that their eyes may from time to time rest on some object outside the schoolroom. There appears here something more than the germ of an interesting divergence of view between doctor and teacher!

The interim report of a committee of the Illuminating Engineering Society on artificial lighting is reproduced and commended to the attention of school managers and of local education authorities and their officers, as is also the report on school books in the 1911 report. This section does not seem strong enough, and we should like to see the Board of Education taking up a much firmer attitude on sewing in schools and on the type of school books. The report of the British Association Committee has put the question of the permissible type in school books on to a definite basis. Much is being done to treat visual defects, but it would be very much better national economy to prevent them.

*(To be continued.)*

# Public Health.

## ANNUAL REPORT OF THE INSPECTOR-GENERAL OF HOSPITALS AND CHIEF HEALTH OFFICER OF NEW ZEALAND.

AN instructive report for the year ended March 31st, 1913, has been submitted by Mr. T. H. A. Valintine, the chief health officer, to the Minister of the Department of Public Health, Hospitals, and Charitable Aid. Public health work in New Zealand is undertaken both by local and central authorities, but the direction and supervision of much of the work, particularly in regard to general and special hospitals, is considerably more centralised than is the case in England. The population of New Zealand is slightly over a million; the 1912 birth-rate was 26·48, and the death-rate—the lowest hitherto recorded—was only 8·87. Among classes of deaths usually contributing to high mortality we find an infant death-rate of 51 per 1000 births, about half the English rate, while the phthisis mortality is also in about the same proportion—0·5 per 1000 of population. Death-rates from cancer and arterial diseases, on the other hand, are nearer to those for England and Wales, and are stationary or on the increase. A comparatively high mortality from organic heart disease (1·2 per 1000) is noticeable. In regard to tuberculosis, it is stated that 231 beds will shortly be available in special sanatoriums for consumptive patients. Farm and labour colonies for suitable cases have also been proposed, but progress with these institutions is unlikely in view of the serious demands which hospital expenditure generally has been making on public funds. A system of medical inspection of school children was decided upon in May, 1912, and a preliminary survey has been undertaken. The result, as in England, has shown that a larger number of children require treatment for illness or defect than was originally anticipated, and a considerable increase of central and local medical staffs for the purpose is considered necessary. An attempt has been made during the year to reorganise the native medical service, which hitherto appears to have been carried out on the system of giving small subsidies to medical men to undertake duties of medical practice among Maoris, which have been very ill-defined. The quarantine stations of the Dominion are reported to be in several respects out of date and likely to be quite insufficient "for the accommodation of the ship's company of a modern liner." This conception of the provision needed by the sanitary authority of a port is foreign to English ideas on the subject, as in this country it is usually considered sufficient to allow the healthy passengers and crew to go to their destinations, these being kept under observation by the local sanitary officers. Probably the apprehension of small-pox has caused the more extensive provision of quarantine accommodation to be entertained. From the reports of the medical inspectors of schools it would appear that only some 5 per cent. of the children examined have been vaccinated, and the danger of the introduction of an unrecognised small-pox case into the more thickly populated parts of the Dominion is naturally viewed with considerable alarm.

The year has seen the greatest advance in the administration of the New Zealand Sale of Food and Drugs Act since its passing in 1907. An extensive set of regulations has been made providing for the proper labelling of food packages; for a statement of weight of the contents; limiting the use of preservatives, flavouring, and artificial colouring matters; and for the protection of food from contamination. These regulations represent a considerable advance and are worthy of imitation, or at least of close attention and study, outside New Zealand. For the greater number of foodstuffs in ordinary household use standards have been prescribed, and conditions have been laid down for securing the cleanliness and freedom from contamination of meat products, milk, ice-cream, and ices. The "fraud of the label" has been very prominently brought out as a result of these regulations in connexion with a large variety of foods, and the insistence on the law requiring reasonable accuracy of statement cannot fail to have beneficial results to the public. It may be noted that patent or proprietary "medicines" containing alcohol must now be sold under labels stating the percentage of proof spirit which they contain.

Some interesting figures are given in regard to the organisation for hospitals and charitable aid throughout the Dominion, and a series of detailed reports relating to these institutions, obtained by inspectors of the central department, is contained in the volume. The total expenditure of the hospital and charitable aid boards during the year 1912–13 was £469,787, of which no less than £228,337 was in respect of hospital maintenance. The former sum represents about 9*s.* 6*d.* per head of population, and has steadily increased since 1902–03, when the corresponding incidence per head was 5*s.* 10*d.* Ten years ago, however, only 18·2 per 1000 of the population availed themselves of hospital treatment, as against 25·8 per 1000 last year. The number of beds available per 1000 of the population is now 3·03. The cost of the service, which apparently provides hospital accommodation for diseases and accidents of all kinds, is defrayed from Government contributions, levies on local authorities, payments by hospital patients, and voluntary contributions. The latter have a decidedly downward trend. Before 1885, when the hospitals were maintained by voluntary contributions and Government subsidy, one-ninth of the total expenditure was met by voluntary contributions; at present this proportion is only one-twentieth.

Among the special reports in the volume reference may be made to that on the maternity hospitals, from which it appears that in the four St. Helen's hospitals, respectively at Christchurch, Auckland, Wellington, and Dunedin, as many as 4303 births took place—about one-seventh of the total births during the year; and to that of the laboratory of medical pathology and vaccine station at Wellington, in which it is clear that much good and varied work is being done.

The examinations of the Royal Sanitary Institute in sanitary science were passed by 14 candidates, and those for inspector of nuisances by 39 candidates, during the year. Mr. Valintine points out that any proposals to conduct similar examinations departmentally are outweighed by the consideration that the certificates obtainable from the Royal Sanitary Institute have a standard value which is recognised throughout the British Empire.

# VITAL STATISTICS.

## HEALTH OF ENGLISH TOWNS.

In the 97 English and Welsh towns, with populations exceeding 50,000 persons at the last Census and whose aggregate population at the middle of this year is estimated at 18,120,059 persons, 8957 births and 5256 deaths were registered during the week ended Saturday, Feb. 28th. The annual rate of mortality in these towns, which had steadily declined from 18·4 to 15·0 per 1000 in the four preceding weeks, slightly rose to 15·1 per 1000 in the week under notice. During the first eight weeks of the current quarter the mean annual death-rate in these towns averaged 16·8 against 16·6 per 1000 in London during the same period. Among the several towns the death-rate last week ranged from 4·4 in Ealing, 4·5 in Bath, 4·6 in Ilford, 6·3 in Cambridge, and 6·6 in Eastbourne, to 21·3 in Great Yarmouth, 22·7 in Rochdale, 23·9 in Wigan, 24·2 in Burnley, and 28·0 in Barnsley.

The 5256 deaths from all causes were 53 in excess of the number in the previous week, and included 413 which were referred to the principal epidemic diseases, against 401 and 397 in the two preceding weeks. Of these 413 deaths, 115 resulted from whooping-cough, 101 from measles, 83 from infantile diarrhœal diseases, 72 from diphtheria, 34 from scarlet fever, and 8 from enteric fever, but not one from small-pox. The mean annual death-rate from these diseases last week was equal to 1·2, against 1·2 and 1·1 per 1000 in the two preceding weeks. The deaths attributed to whooping-cough, which had been 116, 129, and 110 in the three preceding weeks, rose to 115 last week, and caused the highest annual death-rates of 1·1 in Sheffield, 1·2 in Middlesbrough and in Newport (Mon.), 1·4 in Smethwick, 1·5 in West Bromwich, 1·6 in West Hartlepool, and 1·7 in Swansea. The deaths referred to measles, which had been 64, 89, and 115 in the three preceding weeks, declined to 101 last week; the highest death-rates from this disease were 1·6 in Leicester, 1·9 in Rhondda, 2·2 in Cardiff, 2·9 in Barnsley, and 5·7 in Burnley. The fatal cases of diarrhœa and enteritis (among infants under 2 years) which had been 66, 68, and 70 in the three preceding weeks, further rose to 83 last week; of this number 22 occurred in London, 8 in Liverpool, 6 in Manchester, 4 in Stoke-on-Trent, 4 in Birmingham, and 3 in Leeds. The deaths attributed to diphtheria, which had been 70, 64, and 52 in the three preceding weeks, rose to 72 last week, and included 17 in London and its suburban districts, 9 in Birmingham, 4 in Liverpool, 3 in Southampton, and 3 in Manchester. The deaths referred to scarlet fever, which had been 38, 37, and 33 in the three preceding weeks, were 34 last week, of which 7 were registered in Birmingham, 4 in Manchester, 3 in London, 3 in Oldham, and 2 in South Shields. The fatal cases of enteric fever, which had been 23, 14, and 17 in the three preceding weeks, declined to 8 last week, and included 2 in Leeds.

The number of scarlet fever patients under treatment in the Metropolitan Asylums and the London Fever Hospitals, which had declined from 3699 to 3457 in the four preceding weeks, had further fallen to 3392 on Saturday last; 401 new cases were admitted during the week, against 339, 428, and 351 in the three preceding weeks. These hospitals also contained on Saturday last 1230 cases of diphtheria, 315 of whooping-cough, 92 of measles, 82 of enteric fever, and 1 of small-pox. The 1222 deaths from all causes in London were 8 fewer than the number in the previous week, and were equal to an annual death-rate of 14·1 per 1000. The deaths referred to diseases of the respiratory system, which had declined from 425 to 245 in the four preceding weeks, were 243 last week, and were 144 below the number recorded in the corresponding week of last year.

Of the 5256 deaths from all causes in the 97 towns, 156 were attributed to various forms of violence, and 350 were the subject of coroners' inquests. The causes of 50, or 1·0 per cent., of the total deaths were not certified either by a registered medical practitioner or by a coroner after inquest. All the causes of death were duly certified in Manchester, Sheffield, Leeds, Bristol, West Ham, Bradford, and in 67 other smaller towns. Of the 50 uncertified causes of death last week 12 were recorded in Birmingham, 6 in Liverpool, 5 in London, 4 in South Shields, 3 in Sunderland, and 2 in Gloucester.

## HEALTH OF SCOTCH TOWNS.

In the 16 largest Scotch towns, with an aggregate population estimated at 2,293,200 persons at the middle of this year, 1278 births and 770 deaths were registered during the week ended Saturday, Feb. 28th. The annual rate of mortality in these towns, which had steadily declined from 20·9 to 16·5 per 1000 in the five preceding weeks, rose to 17·5 per 1000 in the week under notice. During the first eight weeks of the current quarter the mean annual death-rate in these Scotch towns averaged 18·9, against a corresponding rate of 16·8 per 1000 in the 97 large English towns. Among the several towns the death-rate last week ranged from 6·3 in Falkirk, 7·7 in Perth, and 11·3 in Motherwell, to 19·2 in Dundee, 20·9 in Edinburgh, and 21·1 in Clydebank.

The 770 deaths from all causes were 43 in excess of the number in the previous week, and included 98 which were referred to the principal epidemic diseases, against numbers rising from 68 to 82 in the three preceding weeks. Of these 98 deaths, 48 resulted from measles, 13 from scarlet fever, 13 from whooping-cough, 13 from infantile diarrhœal diseases, and 11 from diphtheria, but not one from enteric fever or from small-pox. These 98 deaths from the principal epidemic diseases were equal to an annual death-rate of 2·2, against 1·2 per 1000 in the 97 large English towns. The deaths attributed to measles, which had been 34, 41, and 42 in the three preceding weeks, further rose to 48 last week, of which 28 occurred in Glasgow, 9 in Edinburgh, 4 in Ayr, and 3 in Leith. The deaths referred to scarlet fever, which had been 6, 7, and 6 in the three preceding weeks, rose to 13 last week, and included 4 in Glasgow, 3 in Edinburgh, 2 in Dundee, and 2 in Kirkcaldy. The fatal cases of whooping-cough, which had declined from 7 to 3 in the four preceding weeks, rose to 13 last week; 7 deaths were recorded in Glasgow, 3 in Coatbridge, and 2 in Paisley. The deaths of infants (under 2 years) attributed to diarrhœa and enteritis, which had been 7, 8, and 16 in the three preceding weeks, fell to 13 last week, of which 7 were registered in Glasgow. The fatal cases of diphtheria, which had been 15, 12, and 14 in the three preceding weeks, declined to 11 last week, and comprised 4 in Glasgow, 3 in Aberdeen, 2 in Edinburgh, and 2 in Dundee.

The deaths referred to diseases of the respiratory system, which had decreased from 230 to 143 in the six preceding weeks, further fell to 116 in the week under notice; 15 deaths were attributed to various forms of violence, against numbers declining from 36 to 22 in the four preceding weeks.

## HEALTH OF IRISH TOWNS.

In the 27 town districts of Ireland, with an aggregate population estimated at 1,205,280 persons at the middle of this year, 618 births and 480 deaths were registered during the week ended Saturday, Feb. 28th. The annual rate of mortality in these towns, which had been 21·9, 18·9, and 19·1 per 1000 in the three preceding weeks, further rose to 20·8 per 1000 in the week under notice. During the first eight weeks of the current quarter the mean annual death-rate in these Irish towns averaged 21·9 per 1000; in the 97 large English towns the corresponding rate did not exceed 16·8, while in the 16 Scotch towns it was equal to 18·9 per 1000. The annual death-rate last week was equal to 22·3 in Dublin (against 14·1 in London and 17·5 in Glasgow), 20·0 in Belfast, 17·0 in Cork, 21·6 in Londonderry, 29·8 in Limerick, and 15·2 in Waterford, while in the 21 smaller towns the mean death-rate was 19·5 per 1000.

The 480 deaths from all causes were 39 in excess of the number in the previous week, and included 35 which were referred to the principal epidemic diseases, against numbers declining from 37 to 26 in the three preceding weeks. Of these 35 deaths, 9 resulted from infantile diarrhœal diseases, 8 from measles, 8 from scarlet fever, 6 from whooping-cough, 2 from diphtheria, and 2 from enteric fever, but not one from small-pox. The mean annual death-rate from these diseases last week was equal to 1·5 per 1000; in the 97 large English towns the corresponding rate did not exceed 1·2, while in the 16 Scotch towns it reached 2·2 per 1000. The deaths of infants (under 2 years) attributed to diarrhœa and enteritis, which had been 7, 8, and 10 in the three preceding weeks, were 9 last week, of which 4 occurred in Belfast, 2 in Dublin, and 2 in Cork. The deaths referred to measles, which had been 8, 5, and 3 in the three preceding weeks, rose to 8 last week, and comprised 7 in Dublin and 1 in Lisburn. The fatal cases of scarlet fever, which had been 10, 9, and 3 in the three preceding weeks, rose to 8 last week, of which 6 were registered in Belfast and 2 in Dublin. The 6 deaths attributed to whooping-cough, of which 4 occurred in Belfast, were equal to the average in the earlier weeks of the quarter. The 2 deaths from diphtheria were recorded in Dublin, and the 2 fatal cases of enteric fever in Dublin and Clonmel respectively.

The deaths referred to diseases of the respiratory system, which had steadily declined from 157 to 91 in the four preceding weeks, rose to 100 in the week under notice. Of the 480 deaths from all causes, 144, or 30 per cent., occurred in public institutions, and 8 resulted from different forms of violence. The causes of 23, or 4·8 per cent., of the total deaths were not certified either by a registered medical practitioner or by a coroner after inquest; in the 97 large English towns the proportion of uncertified causes of death last week did not exceed 1·0 per cent.

# THE SERVICES.

## ROYAL NAVY MEDICAL SERVICE.

IN accordance with the provisions of Order in Council of April 1st, 1881, Fleet-Surgeon Robert Howard Nicholson has been placed on the Retired List at his own request (dated March 1st, 1914).

The following appointments have been notified:—Fleet-Surgeons: E. R. Grazebrook to the *Neptune* on transfer of flag; and W. J. Colborne to the *Iron Duke* and for general staff duties on commissioning. Staff-Surgeons: E. A. G. Wilkinson to the *Iron Duke* on commissioning; G. Nunn to the *Neptune* on transfer of flag; J. Whelan to the *Exmouth*; P. T. Sutcliffe to the *Cyclops*; and R. F. MacMahon to the *Hindustan*.

## ARMY MEDICAL SERVICE.

Colonel Edward Butt, from Half-pay List, is placed on retired pay (dated March 4th, 1914).

## ROYAL ARMY MEDICAL CORPS.

The undermentioned Captains to be Majors (dated March 1st, 1914):—Brevet Major Arthur B. Smallman, Wentworth F. Tyndale, C.M.G., William F. Ellis, Ralph B. Ainsworth, Charles A. J. A. Balck, Dudley S. Skelton, Philip G. Easton, and Richard Rutherford.

Colonel J. Maher has taken up duty as Assistant Director of Medical Services at Gibraltar.

Lieutenant-Colonel E. Eckersley has been selected for the increased rate of pay under Article 358 of the Royal Warrant for Promotion. Lieutenant-Colonel C. W. H. Whitehouse has been appointed to hold charge of the Military Hospital at Hilsea. Lieutenant-Colonel J. F. Donegan has embarked on the transport s.s. *Plassy* for a tour of service in India. An exchange of duty in India has been effected between Lieutenant-Colonel H. E. Winter to the Sixth (Poona) Division, vice Lieutenant-Colonel G. A. T. Bray to the Home Establishment. Lieutenant-Colonel D. M. O'Callaghan has been transferred from Hilsea to Dover and appointed to hold charge of the Military Hospital, vice Lieutenant-Colonel F. R. Newland. Lieutenant-Colonel G. G. Adams has arrived home on leave of absence from the Military Hospital at Secunderabad Cantonment. Lieutenant-Colonel H. C. Thurston has been restored to the Establishment, vice Lieutenant-Colonel A. R. Aldridge, retired. Lieutenant-Colonel T. B. Winter has relinquished charge of the Military Hospital at Colchester. Lieutenant-Colonel A. L. E. Bate has joined the Woolwich District.

Major S. L. Cummins has been appointed Professor of Pathology and Bacteriology at the Royal Army Medical College, vice Brevet Colonel and Lieutenant-Colonel Sir William Leishman. Major E. P. Hewitt has been placed temporarily on the Half-pay List on account of ill-health. Major J. G. Foster has arrived home on leave of absence from the Military Hospital at Ahmednagar Cantonment. Major C. W. Reilly has taken over charge of the Military Hospital at Bodmin. Major J. Crawford Kennedy has embarked for a tour of service with the Eighth (Lucknow) Division of the Northern Army in India. Major J. H. R. Bond has arrived home on general leave of absence from the Military Hospital at Naini Tal. Major W. A. Ward has been appointed to the Southern Command. Major S. de C. O'Grady has been appointed to the Aldershot Command for duty. Major N. H. Ross has been appointed Specialist in the Prevention of Disease and placed in charge of the Research Bacteriological Laboratory at Brigade Headquarters, Fyzabad Cantonment. Major H. F. Shea has been appointed Specialist in Operative Surgery at Lahore. Major N. E. J. Harding has taken up duty as Medical Officer at the Tower of London. Major T. B. Unwin has arrived home on general leave of absence from the Military Hospital at Mount Auriol, Sierra Leone Protectorate. Major W. R. Blackwell has been appointed for temporary duty at the Medical Division of the War Office on arrival home from Lucknow.

Captain H. W. Russell has been appointed to the Military Hospital at Ambala Cantonment. Captain C. R. Millar has taken up duty in the Irish Command. Captain A. W. Byrne has taken up duty as Sanitary Specialist to the Third (Lahore) Division. Captain D. de C. O'Grady has been appointed to the Eastern Command. Captain J. R. Foster has taken up duty in the Irish Command on transfer home from India. Captain G. G. Collet has been appointed Specialist in Dermatology to the Seventh (Meerut) Division. Captain A. H. Heslop has been transferred from the Indian to the Home Establishment. Captain T. S. Coates has taken up duty in India. Captain H. L. Howell has been transferred from the Military Hospital at Ahmednagar Cantonment to Kirkee. Captain T. W. Browne has arrived home for duty from the Military Hospital at Jhansi. Captain W. A. Spong, staff-surgeon at Karachi Cantonment, has been granted six months' general leave of absence home from India. Captain C. W. Bowle has been appointed to the Irish Command. Captain J. J. O'Keefe has arrived home for duty from the Military Hospital at Naini Tal, tour expired. Captain G. F. Dawson has been transferred from the Military Hospital at Chakrata to Bareilly Cantonment. Captain F. Worthington has arrived home for duty from Ceylon. Captain A. G. Wells has been transferred from the Military Hospital at Kasauli Cantonment to Ambala. Captain T. H. Scott has arrived home for duty from Ferozepore Cantonment, tour expired. Captain J. Mackenzie has relinquished duty at Pirbright and embarked for India. Captain B. A. Odlum has been seconded for service under the Colonial Office. Captain W. H. S. Burney has been transferred from the Military Hospital at Campbellpore to Ferozepore Cantonment. Captain E. M. Middleton has arrived home for duty from Rawal Pindi, tour expired. Captain E. C. Phelan has been appointed for duty on board the transport s.s. *Plassy*, leaving Bombay for Southampton on March 12th with invalids. Captain J. R. Lloyd has been transferred from the Military Hospital at Jubbulpore Cantonment to the Aden Brigade. Captain H. J. Crossley has relinquished duty at Richmond (Yorks) and embarked for India. Captain D. M. Corbett has been appointed for duty on board the transport s.s. *Rohilla*, leaving Karachi on March 19th with time-expired troops for Southampton Docks. Captain F. J. Stuart has been transferred from the Military Hospital at Chakrata to Meerut Cantonment. Captain A. W. Howlett has arrived home for duty from Bareilly Cantonment, tour expired. Captain N. Low has been selected for appointment as Specialist Sanitary Officer to the Eastern Command, North of Thames area, vice Major P. S. Lelean, appointed Assistant Professor of Hygiene at the Royal Army Medical College.

Lieutenant E. V. Whitby has been transferred from the Military Hospital at Kilworth Camp to Fermoy. Lieutenant J. R. Hudleston has left the Aldershot Command and embarked for a tour of service in Jamaica. Lieutenant C. Helm has been transferred from the Military Hospital at the Curragh Camp to Dublin. Lieutenant M. Burnett has taken up duty at the Military Hospital, Gosport, on transfer from Winchester. The following Lieutenants have embarked for a tour of service in India: C. J. H. Little, S. J. Barry, E. P. A. Smith, J. M. Elliott, F. R. B. Skrimshire, E. A. Strachan, H. W. L. Allott, and O. W. J. Wynne. Lieutenant H. J. G. Wells has been appointed to the Military Hospital at Rawal Pindi Cantonment to undergo a special course in Indian sanitation and hygiene. Lieutenant W. Stewart has joined at Lucknow. Lieutenant F. C. Cowton has been appointed to the Eastern Command. Lieutenant N. T. Whitehead has taken up duty in the London District. Lieutenant H. S. Blackmore has been appointed to Bangalore. Lieutenant W. V. Corbett has been appointed to the London District. Lieutenant R. B. Price has taken up duty at the Queen Alexandra Military Hospital. Lieutenant A. S. Heale has embarked at Malta for a tour of service in India.

## INDIAN MEDICAL SERVICE.

The King has approved of the promotion of the following officer from Lieutenant to Captain: Walter Oliphant Walker (dated Oct. 22nd, 1913).

The King has approved of the admission of the undermentioned to the Indian Medical Service as Lieutenants on probation (dated Jan. 31st, 1914): George Henry Mahony, William Ross Stewart, Gordon Covell, John Gregory Owen Moses, Koty Venkata Ramana Rao, Hari Chand, Jacob William van Reenen, Venkatasubba Mahadevan, Alured Charles Lowther O'Shee Bilderbeck, Maurice James Roche, Basil Fraser Beatson, Nehchal Das Puri, Prabodh Chandra Roy, Monindranath Das, Jagannath Balkrishna Vaidya, Joseph Martin Reeves Hennessy, William Mawhood Lupton, Alfred Glen Cowper, Hubert Horan Brown, and Charles Henry Niel Baker.

The King has approved of the confirmation of the commissions of the following Lieutenants on probation with effect from July 26th, 1913: Sahib Singh Sokhey, Atul Krishna Sinha, Subramanya Doraisamy, Allan Seddon, James Findlay, William Collis Spackman, Jyotish Chandra De, Nanalal Maganlal Mehta, Robert Morrison Easton, Charles Henry Powell Allen, Peregrine Stephen Brackenbury Langton, and Reginald Victor Martin.

The King has approved of the retirement of the undermentioned officers:—Surgeon-General Henry Wickham Stevenson, C.S.I. (dated Jan. 10th, 1914). Major Maxwell Dick (dated Feb. 13th, 1914).

Surgeon-General H. W. Stevenson, C.S.I., has relinquished charge at Bombay.

Colonel P. Hehir, Assistant Director of Medical Services to the Sixth (Poona) Division, has been selected to officiate as Deputy Director at Army Headquarters during the absence on seven months' leave of Colonel H. Hendley. Colonel R. W. S. Lyons has taken up duty as Assistant Director of Medical Services to the Third (Lahore) Division of the Northern Army in India.

Lieutenant-Colonel J. Penny has been granted an extension of leave of absence home from India on medical certificate for four months. Lieutenant-Colonel J. M. Crawford has

been appointed Civil Surgeon at Benares on return to India from leave of absence.

Major W. T. McCowen has arrived home on leave of absence from India. Brevet Major S. R. Christophers, Assistant Director to the Central Research Institute at Kasauli Cantonment, has been appointed to officiate as Director during the absence on leave of Major W. F. Harvey, or until further orders. Major R. F. Baird, civil surgeon at Benares, has been transferred to Gonda. Major J. G. Swan has joined at Dalhousie. Major R. M. Dalziel, superintendent of the Central Jail at Multan, has arrived home on leave of absence from India. Major W. G. Liston, C.I.E., has been reverted to the substantive appointment as Director of the Bombay Bacteriological Laboratory, and appointed to act as senior member of the Plague Research Commission in addition to his own duties. Major J. L. Marjoribanks has taken up duty as Deputy Sanitary Commissioner in the Western Registration District, Bombay. Major W. E. McKechnie has arrived home from Bhim Tal on leave of absence.

Captain H. H. Broome has taken up duty as Professor of Anatomy at the Government Medical College, Lahore, vice Captain R. H. Bott. The services of Captain H. R. Dutton have been replaced at the disposal of the Government of Bengal Presidency. Captain J. Morison has arrived home on leave of absence from India. Captain E. W. Witham, medical officer in charge of the Assam Valley Light Horse, has been granted leave of absence home from India for one year. Captain A. D. Stewart has been appointed to officiate as Medical Officer of Health at Simla, vice Captain R. A. Needham, who has been placed on special deputation duty under the Education Department of the Government of India. Captain F. B. Shettle, medical officer in charge of the 38th Central India Horse, has been appointed for temporary duty in the Civil Medical Department of Bombay Presidency. Captain H. Halliday, civil surgeon on special duty with the Clerical Services Committee at Lahore, has been appointed to Lyallpur. Captain H. C. Keates, plague medical officer at Lahore, has been appointed Plague Medical Officer at Hoshiarpur. Captain C. G. Seymour has arrived home on leave of absence from India. The services of Captain D. D. Kamat have been placed at the disposal of the Government of Bombay for civil employment.

### SPECIAL RESERVE OF OFFICERS.

*Royal Army Medical Corps.*

Lieutenant John H. C. Grene resigns his commission (dated March 4th, 1914).

### TERRITORIAL FORCE.

*Royal Army Medical Corps.*

3rd Home Counties Field Ambulance, Royal Army Medical Corps: Horace Townsend Newman Merrick to be Lieutenant (dated March 4th, 1914).

2nd London Clearing Hospital, Royal Army Medical Corps: Captain Frederick William Higgs, from the List of Officers attached to units other than Medical Units, to be Captain (dated Jan. 28th, 1914).

*Attached to Units other than Medical Units.*—Lieutenant William J. Harrison to be Captain (dated Oct. 29th, 1913). Major William T. Hannah resigns his commission, and is granted permission to retain his rank and to wear the prescribed uniform (dated March 4th, 1914).

*For attachment to Units other than Medical Units.*—James Ettershank Gordon Thomson to be Lieutenant (dated Dec. 27th, 1913). William Simpson McCune to be Lieutenant (dated Jan. 3rd, 1914). Edmund Frederic Rose (late Surgeon-Lieutenant, 3rd Volunteer Battalion, The Queen's (Royal West Surrey Regiment)) to be Lieutenant (dated March 4th, 1914).

*Supernumerary for Service with the Officers Training Corps.*—Quartermaster-Sergeant Philip Henry Mitchiner, serving with the University of London Contingent, Senior Division, Officers Training Corps, to be Lieutenant, for service with the medical unit of that contingent (dated March 4th, 1914).

### DEATHS IN THE SERVICES.

Deputy Inspector-General of Hospitals and Fleets George Moore, R.N., retired, at his residence, Shirehampton, near Bristol, in his eighty-seventh year. He entered the service in 1848, was promoted to staff-surgeon in 1857, and fleet-surgeon in 1870, becoming deputy inspector-general in 1882, in which year he retired. As senior assistant-surgeon he served in the *President*, flagship of Rear-Admiral Price, during the Russian war in 1854-55, and was present at the attacks on the stronghold of Petropaulovski, in Kamtschatka, by the combined English and French squadrons, and was in medical charge of the landing parties on both of these occasions. He was also present at the capture of the Russian vessels *Sitka*, of 10 guns, and the *Anadir*, of 4 guns. In 1856 he was in medical charge of a punitive expedition, consisting of 400 seamen and marines, under the command of Captain Houston, of the *Trincomalee*, and directed by his Excellency the Governor of Vancouvers, which was sent against Indian tribes in Vancouver's Island (recommended for his services, and specially promoted to the rank of surgeon in 1857). He served as fleet-surgeon of the *Swiftsure* during the civil war in Spain in 1873, when he was present at the capture of the Spanish insurgents' ships *Vittoria* and *Alucausa*, and subsequently on their being forcibly removed from Cartagena under a hostile demonstration made by the insurgents.

Fleet-Surgeon Edward Hanbury Williams, R.N. (retired), in his sixty-first year, at Southampton, on Feb. 25th. He entered the service as surgeon in 1878, reached the rank of staff-surgeon in 1890, fleet-surgeon in 1899, and retired in the following year.

Captain Percy Farrant, R.A.M.C., on Feb. 10th, at Sierra Leone, aged 32. He entered the service in 1905 as lieutenant and was promoted to captain in 1909. After serving for three years in Jamaica he went to Africa, where he served on the West Coast.

### THE HEALTH OF THE UNITED STATES ARMY.

The report of the Surgeon-General of the United States Army for the year ending June, 1913, points out that the non-effective rate—that is, the statement of the average number of men in each 1000 incapacitated for duty by disease or injury each day during the year—is the true measure of the loss in efficiency of the army from disease or injury. This rate for the year 1912 was by far the lowest on record since 1867. The death-rate has also improved, and the occurrence of venereal diseases has been controlled. This last improvement is the result of the propaganda of education in the Army, of compulsory prophylaxis, with physical examinations, and of the stoppage of pay by act of Congress of men incapacitated by these diseases. With regard to tuberculosis it is stated that improved sanitation and the exercise of care in the selection of recruits have caused the disease to diminish steadily. A diminution in the admission rate for malarial fevers is also shown, although the admission-rate for these fevers in the Philippine Islands was higher than it has been in any year since 1906. "Finally," says the Surgeon-General in his introduction, "it is being demonstrated day by day in the camps of Texas City and Galveston that troops properly protected by vaccination against small-pox and typhoid fever can live in camps properly located with the present system of camp sanitation for an indefinite length of time without any increased morbidity among the troops." Attention is again drawn to the great deficiency in the number of hospital corps.

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ROYAL SUSSEX COUNTY HOSPITAL, BRIGHTON.—Some striking comparative figures were presented in the annual report submitted to the general court of governors of this hospital on Feb. 26th. The number of out-patients and the casualties treated showed a remarkable decrease, and was accounted for by the working of the National Insurance Act. The number of out-patients during last year—and the hospital is the largest general hospital south of London—was 8783, against 10,568 in the previous year, and the number of attendances in the out-patients' department 32,197, a decrease of 7532. The casualties were 5396, against 6972, and the casualties dressed in the out-patients' department 11,232, a decrease of 7024. The demands upon the in-patients' department showed an increase. The new president of the hospital for the ensuing year is Sir John H. Luscombe, J.P., High Sheriff of Sussex.

THE WOMEN'S HOSPITAL FOR CHILDREN.—By the kindness of Sir John Bland-Sutton an entertainment was held in the Persian Hall, 47, Brook-street, W., in aid of this young and much needed charity on Saturday last, Feb. 28th. The hospital is at present housed in the Harrow-road, London, W., but a promising start has been made with a building fund, larger premises in the neighbourhood being required. The programme of the entertainment included violin solos by Miss Winnie Game; three songs by Mr. G. Pyman; a series of original dances arranged by Miss Edith Willoughby Brown and accompanied at the piano by Miss J. C. Macdonald, who also composed some of the music; solo dances by three children, Miss Fay Yeatman, Miss Mary Saunders, and Miss Mary Richards; country songs by the three little children of Dr. R. O. Moon; and a fairy tale play for nine children founded on Christina Rossetti's "Goblin Market," the dances here also being arranged by Miss Willoughby Brown. During an interval in the programme, Mrs. Kendal eloquently pleaded the cause of sick children in a brief speech. The entire and considerable profits of the entertainment have been handed to the hospital, Sir John Bland-Sutton having defrayed all expenses as well as having lent his house.

# Home and Foreign Notes.

(FROM OUR OWN CORRESPONDENTS.)

## SCOTLAND.

### *Tuberculosis in Edinburgh.*

CONSEQUENT on the changes found necessary for the administration of treatment and general organisation of tuberculous patients under the National Insurance Act, which include the transference of Poor-law consumptives to the town authorities, a scheme is now on foot for the transference to the corporation of Edinburgh of the Royal Victoria Hospital for Consumption and its allied institutions. In view of the comprehensive scheme to be undertaken by the local authorities it has for some time been considered that all the institutions and agencies at present engaged in the prevention and treatment of tuberculosis in the city should be amalgamated and organised as units of one central depôt. It is therefore proposed that the Royal Victoria Hospital, with its Tuberculosis Dispensary in Spittal-street, and its Farm Colony at Lasswade, should be absorbed by the corporation authorities, who already have increased their accommodation at Colinton Mains Hospital in order to deal with tuberculous cases, and have taken over all patients with positive swabs from the Poor-law institutions within the city boundaries. The provisional conditions of the draft lay down that the Victoria Hospital is not to be used for the isolation of advanced cases, and that as many as possible of the medical staff, nurses, and others at present employed shall be taken over if they are willing to enter the service of the corporation. Further, it is proposed that, notwithstanding the transfer of the other concerns, the present trustees of the Royal Victoria Dispensary shall continue to act under the constitution and rules of that institution in promoting the advancement of medical and surgical science, with reference to tuberculosis and allied diseases, for which purpose the trustees are in possession of various invested funds, and they shall be entitled to receive any fresh moneys left for this object. Such funds may be applied to the establishment of a chair or lectureship in the University of Edinburgh. In the event of this the corporation are to give all reasonable facilities for teaching in connexion with their institutions.

### *The Care of Imbecile Children in Scotland.*

At the fifty-third annual general meeting of the Scottish National Institution for the Education of Imbecile Children Dr. R. D. Clarkson reported that the number of children cared for had been larger than ever before, the average number on the register being 377, or 18 more than last year. The chairman (Sir David Paulin) said that for 53 years the institution had been doing a great national service. Referring to the Mental Deficiency Act, which is to come into operation in May, he said that so far from the Act diminishing the usefulness of the institution it would, so far as regards educable, and perhaps also ineducable, children, place greater demand than ever on the available accommodation. In any case, as there was no immediate prospect of any other accommodation being provided for imbecile children in Scotland, and as the requirements of the Act upon local authorities would at once become urgent, there would necessarily be a great demand upon the accommodation of this institution. At the present time these demands were excessive, and the directors must at once take steps to provide for more patients and thus be enabled better to fulfil its purpose.

### *The Edinburgh Day Nurseries Association.*

At the annual meeting of this association the report showed that the attendance at the nurseries during the past year numbered 26,013, an increase of 846 over the previous year. The accounts showed that, although the annual subscriptions were well kept up, there was a deficiency on the year's work of over £30. The Lord Provost, in moving the adoption of the report, said that the idea of the nurseries was to help those who were prepared to help themselves—namely, the hard-working widow, or the wife whose husband was for any reason out of employment and she was therefore the breadwinner. In addition to these worthy cases, there unfortunately existed many cases where the husband was neglectful, lazy, intemperate, and altogether unemployable, and here the brunt of keeping the home together fell upon the wife. Under these conditions it was a great help and relief to know that the little children were being properly cared for in their absence, and it was for this purpose that the day nurseries existed. That the mothers appreciated what was done for them was evidenced by the fact that of the total expenditure of £507 more than one-half was met by the mothers' payments. The Stockbridge Nursery had recently added a training school for children's nurses to its work, the total expenditure on which for last year showed a shortage of £225. The pupils' fees, however, were only for six pupils at the original fee of £25, and two at the increased fee of £30, whereas the full complement was 14 pupils per annum, which, at £30, would bring in a sum of £420, or nearly enough to balance the expenditure and income. The full number of pupils were now in residence, and it appeared likely from the number of applications which had been received that there would not be much difficulty in the future in keeping up to the maximum, and the school and crèche should become self-supporting.

### *The Royal Edinburgh Asylum for the Insane.*

The annual meeting in connexion with this institution was held on Feb. 23rd, when Dr. G. M. Robertson, the physician-superintendent, read his report. He again strongly emphasised the importance of alcoholism as a cause of insanity, and also stated that there was no evidence to show that the wear and tear of modern life tended to increase insanity, but that rather the opposite seemed to be true. Insanity was more prevalent in rural districts with falling populations, but a cause for this might be found in the migration of the more fit either abroad or to more congested areas.

### *Post-graduate Teaching in Edinburgh.*

In addition to the courses in July, August, and September, already advertised, there will be a special course on midwifery and gynæcology during the latter half of August. Particulars can be had from the secretary, New University Buildings, Edinburgh.

### *The Newmains Medical Dispute.*

Attention has been drawn by me to a dispute between the Lanarkshire Miners' Union and the Newmains doctors, and since then an interesting development has taken place. Last year by large

majorities the men employed in Coltness Ironworks, Allanton Foundry, the Coltness Collieries, and Chapel and Morningside Collieries agreed to pay their doctors the flat rate of 2½*d.* per week for attendance on the dependents of workmen. Shortly after the Lanarkshire Medical Association was formed, which, in conjunction with the Miners' Union, formed a scheme of medical service. After a few meetings the flat rate of 2*d.* was agreed upon. The county doctors were much disappointed at the result, and many of the men in the rural areas agreed to come into the scheme only on condition that the agreement was temporary, and that the question of rates in rural areas would get special consideration in the immediate future. The miners' officials agreed at the time that there was a case for the rural doctors, but little so far has been done to remedy matters, and the doctors in the scheme are becoming more and more dissatisfied. A number of these refused to recognise the scheme, but their opposition generally collapsed when the Miners' Union brought pressure to bear on them, and now very few medical men in the county are outside the scheme. The Miners' Union took a ballot of the men in Morningside and Chapel Collieries, when a large majority declared in favour of the flat rate of 2*d.* On the Newmains doctors being notified of the result of the ballot they posted a notice at the pits informing the men that they declined to attend them at that rate, and intimated, in the event of the ballot coming into force on Feb. 27th, the resignation of their appointments. The friendliest relations have always existed between the miners and their doctors, and when the men received the resignation of their doctors they resolved to reconsider the matter and take a fresh ballot, with the result that the previous one was reversed, and a majority of 300 declared in favour of paying 2½*d.* as formerly. The Miners Union now refuses to accept the second ballot of the men, and as the men are in full agreement with the doctors and are resolved to abide by the last ballot notwithstanding the union, a most interesting and piquant situation has now been reached.

*Outbreak of Small-pox in Aberdeen.*

An outbreak of small-pox has occurred in Aberdeen, four of a family being attacked. The infection, it is supposed, was brought from abroad by a sailor son, who was the first to succumb. This is the first time since 1907 that there has been small-pox in Aberdeen, and then there was only one case, that of a foreign sailor, and during the last 14 years there have been in all only 11 cases in the city. Dr. Matthew Hay, medical officer of health, reported that since the passing of the Vaccination (Scotland) Act, 1907, the number of conscientious objectors to vaccination has rapidly increased in Aberdeen. In 1907 there were only 82; in 1908 there were 210; in 1909, 335; and in 1910, 373. The number of unvaccinated children has not, however, as far as Aberdeen is concerned been reduced in proportion, for the reason that the increasing number of parents who make the statutory declaration of objection is drawn only in part from the class that have been in the habit of consenting to vaccination, a considerable part coming from among those who have hitherto contrived in one way or another to avoid the vaccination of their infants.

*Sanatorium Benefit in Aberdeen.*

At the first meeting of the new Sanatorium Benefit Committee, held on Feb. 20th in Aberdeen, a letter was read from the Local Government Board approving the proposal to provide 53 beds for Aberdeen county in the proposed joint sanatorium to be erected by the county councils of Aberdeen, Kincardine, Elgin, and Nairn. The county of Banff had also been strongly recommended by the Board to join the joint scheme. The Board also regarded favourably the proposal to provide hospital accommodation for 33 patients. A subcommittee was appointed to confer as to joint sanatorium, &c.

*Ross Memorial Hospital, Dingwall.*

At the annual meeting of subscribers to the Ross Memorial Hospital, Dingwall, the chairman referred to the great loss the institution had sustained in the death of Dr. J. Adam, and moved that their regret should be recorded in the minutes. A letter was read from Dr. William Bruce resigning his post as senior physician. The chairman expressed the regret that was felt at the retirement of Dr. Bruce, who has been connected with the hospital for upwards of 40 years and had always had its interests so much at heart.

March 3rd.

## PARIS.

*The Control of Pharmaceutical Specialities.*

A DISCUSSION has been in progress for some weeks at the Académie de Médecine in regard to a proposition by the Government for a fresh regulation of the sale of poisonous substances. Many resolutions have been passed, of which two will be of great import should they be accepted by the Government. The first relates to the sale of pharmaceutical specialities which has considerably increased of recent years. Although the sale of secret remedies is absolutely prohibited by law, proprietary pharmaceutical products violate all the regulations which demand that their exact composition shall be given on the box or bottle containing them. They are all sold under some fancy trade name, carefully registered, and the greater part of them contain on their labels nothing more than a list of the diseases for which they are alleged to be useful. Custom allows these preparations to be sold over the counter in all the pharmacies without a medical prescription. As these remedies are widely advertised in the newspapers they constitute an incitement to self-drugging without medical advice. Moreover, many of these preparations contain such powerful poisons as morphia, cocaine, aconitine, digitalin, and strophanthin in quantities that a pharmacist would not be allowed to dispense in any other form without a medical man's prescription. The Academy, therefore, has passed a resolution that in future all these pharmaceutical specialities should be compelled to bear on their labels a complete and precise statement of their several ingredients and the doses thereof. Further, none of those containing drugs on the poison schedule should be allowed to be sold or dispensed without a doctor's prescription. This resolution will doubtless meet with great opposition from the manufacturers of such products who now form a wealthy and powerful corporation, having great influence with the Ministère du Commerce. Another resolution by the Academy deals with prescriptions written in a false name and with a forged signature —a proceeding quite common among morphine and cocaine *habitués*. Some detach prescription blanks in the medical man's waiting-room while he is not looking. They have even had these prescription

forms reproduced by printers. Occasionally the pharmacist to whom these prescriptions come suspects that they are irregular, and warns the medical man by the telephone. On many occasions the forgers of these false prescriptions have been prosecuted, but, strange to say, the courts have always been reluctant to regard this act as on a par with forgery in the commercial sense, which is punishable with hard labour. They have considered the punishment too severe for what appeared to them a simple piece of trickery (*supercherie*) in a sick and more or less irresponsible person. The resolution of the Academy demands a special regulation defining the offence when committed under such circumstances and ordaining a punishment therefor. In the case of unscrupulous pharmacists who dispense such prescriptions for their profit, knowing very well that they have been forged, the new regulation will inflict punishment on them also.

*Collective Food Poisonings.*

Some time ago there occurred at Cholet, Maine-et-Loire, a case of collective food poisoning which attacked 38 wedding guests who had eaten a wedding cake covered with icing. Ten of these died, and two further cases were noted among persons who, though they had not taken part in the feast, had tended the victims. This obviously suggests contagion. Many experiments were made by the local medical jurists, but as they proved contradictory Professor Chantemesse was sent from Paris by the Ministry to investigate, and the Academy received his report on Feb. 17th. Professor Chantemesse holds that it was a case of poisoning by a paratyphoid bacillus, which he found in the blood and in the intestines of the victims, both during life and at necropsy, and which he recovered also from fragments of the toxic icing. The bacillus is motile and belongs to the Gärtner group. Its specific toxicity is weak enough under ordinary circumstances, which accounts for the fact that a veritable epidemic did not arise in the houses where the victims were tended. The investigation showed that the icing cream had been prepared a long time in advance. The white of egg, undoubtedly infected, was poured upon the hot cream, and the whole was placed for a few moments in the oven, where an isolating crust formed on the surface of the cake. Under these conditions the culture of the bacillus in the white of egg took place in an anaërobic medium, as in an *étuve*. The cause of the accident was easily found in the blood of the cook who prepared this cream, and who, although herself in good health, doubtless had carried these bacilli in her intestines for many years, for a retrospective inquiry showed that the same person, whose occupation was to prepare banquets in the neighbourhood, had already given rise in several localities to similar accidents, which had not, however, attracted much attention because they were of lesser gravity. Professor Chantemesse thinks that this bacillus is capable of giving rise to such incidents under favourable conditions. He makes suggestions for the preparation of this sort of cream, and recommends rigorous attention to asepsis of the hands of the persons who prepare it. Moreover, Professor Chantemesse cites in his report a notable case in the reign of Louis Philippe, that of the poisoning of M. Lafarge by his wife, who was condemned to the galleys for life after her case had aroused intense excitement throughout the land. He shows that probably this was a case of miscarriage of justice, for the cake which Mme. Lafarge sent her husband, and which caused his death, seems to have been prepared in exactly the same way as that of the deadly cake of Cholet. Madame Lafarge's conviction was secured by the evidence of the famous Orfila, who demonstrated the presence of arsenic in the organs of the poisoned man by Marsh's test when nine other experts had failed.[1] His evidence was considerably criticised.

*The Surgery of the Heart.*

Dr. Tuffier has recently communicated to the Académie de Médecine the results of some investigations undertaken by him at the Rockefeller Institute in regard to surgery in diseases of the heart. The surgery of the heart, hitherto limited to the suture of wounds and the search for projectiles, has given some surprising, if hazardous, results. Intervention in regard to the valves has been of no avail. M. Tuffier's researches have shown that the regions of the ventricle, the base of the aorta and of the pulmonary artery allowed of incision without too great hazard; on the other hand, incision of the auricles is always formidable. The circulation of the cardiac muscle may be interrupted for two minutes. The circulation of the cavity of the heart may be suspended by temporarily effacing the two venæ cavæ for three minutes. This may be prolonged to seven minutes if care is taken to irrigate the brain by suitable injection into the carotid; the surgeon must act quickly. M. Tuffier counsels the following operative procedure. Incision in the second intercostal space at the left edge of the sternum, wide opening of the pleura, forcible separation of the ribs, longitudinal section of the pericardium, arrest of the general circulation by compressing the venæ cavæ. As to the incision of the aorta or the pulmonary artery so as to enable the operator to get at the valves, it must be preceded by the placing in the region where the incision is to be of a piece of a vein or an artery which has been kept in cold storage for 24 hours and which must first be sewn on three of its sides to the wall of the vessel. The incision is then made at the base of the artery and the valve is dealt with, and in the case of very great occlusion incised. Immediately afterwards the wound in the artery is sewn up with a fine thread, and above it is sutured, to reinforce it, the fourth side of the piece fastened there in advance. The sequelæ of this procedure, which so far has been practised only on animals, have been very simple. M. Tuffier thinks that there are cases where it might properly be tried in man.

*The Interneship of the Hospitals and Foreign Students.*

There have existed in France during the past 15 years two kinds of diplomas in medicine—the State diploma, which can be obtained only by candidates who possess a baccalaureate and certificates from French schools and universities; and the diploma of the university, for which are accepted the diplomas and certificates of foreign universities recognised as of equivalent value to the French diploma. Practically the diploma of the university is thus the only one open to foreign students, and though the studies are the same it differs from the State diploma in that it does not confer the right to practise in France. This distinction has been made to afford easy admission to students in the French faculties without over-

[1] A *résumé* of the debates on the subject at the Faculty of Medicine in Paris will be found in THE LANCET of Nov. 14th, 1840.—ED. L.

crowding the medical profession with foreigners (as has been the case in the past), who, not not being liable for military service, have thus a three years' advantage over Frenchmen. A new rule for the interneship, which has been imposed by direction of the Assistance Publique, enacts, among other rigorous requirements, the written studies for the university diploma as well as for the interneship, and excludes the foreign students. This has produced active protest from all the physicians to the hospitals, who accuse the rule of lack of liberality, and assert that it will keep away from France students who on their return to their own countries would bring honour to French science. Moreover, a collective appeal (*démarche*) has been made to the Minister of the Interior, under the leadership of the *doyen* of the Faculty of Medicine, that the exclusion of the diploma of the university should not be upheld.

March 2nd.

## VIENNA.

*Radium Swallowed by a Patient.*

AN unpleasant incident which occurred recently in the General Hospital here caused much anxiety to the medical staff for several reasons. A woman from the country suffering from cancer of the mouth was being treated by prolonged exposure of the affected parts to the influence of radium, and for that purpose a tube containing radium was held in her mouth generally for several hours at a time. One day the tube disappeared and could not be found until the patient was examined by means of the X rays, when it was discovered in the small intestine. Apart from the fact that the valuable tube —it cost 15,000 kronen (about £600)—belonged to the hospital, there was the imminent danger of damage to the alimentary tract if the radium should act for a long time on so sensitive a structure as the intestinal mucosa. An immediate operation was therefore advised and performed, with the result that the patient now feels none the worse for her unique experience. She must have swallowed the tube in the course of a hasty meal to which she helped herself during the time of treatment, in spite of the instructions given by the medical men in whose care she was.

*Munificent Donation to the Austrian Society for Cancer Research.*

A generous gift of £30,000 has recently been offered to and accepted by the Austrian Society for Cancer Research. The donor, a well-known philanthropist, preferred that this large sum should be employed in practically benefiting sufferers from the disease rather than in attempts to solve scientific problems connected with the subject, and it is intended to give effect to his wishes by the establishment of a special cancer ward in the General Hospital, for which purpose another sum of over 2,000,000 kronen (about £90,000) is available already. Negotiations are at present being carried on for the purpose of enabling the society to conduct its researches in the existing wards of the Vienna hospitals until it has its own pavilion ready for occupation.

*A Biological Laboratory for the University of Vienna.*

There exists in our city a well-equipped biological institute which has hitherto been the private property of a few enthusiastic research workers, who have at various times published interesting reports of experiments on the variation of colours of cold-blooded animals and on symbiosis. Some time ago Dr. Pribram and Dr. Figdor, the proprietors, presented it to the University of Vienna together with a handsome sum of money sufficient for the upkeep of the institute in perpetuity. The Vienna Academy of Science will in future control the work done there.

## AUSTRALIA.

*Tenth Australasian Medical Congress.*

THE medical congress to be held in Auckland, N.Z., promises to be successful despite the fact that until recently shipping companies would not accept passengers on account of labour troubles. In all probability in future New Zealand will have her own organisation. The presidents of sections are:—Medicine: Dr. Sinclair Gillies, Sydney. Surgery: Mr. Hamilton Russell, Melbourne. Obstetrics: Sir D. Hardie, Brisbane. Pathology, &c.: Professor Welsh, Sydney. Ophthalmology: Dr. F. A. Pockley, Sydney. Neurology: Dr. Chisholm Ross, Sydney. Public Health: Dr. J. C. Elkington, Brisbane. Pædiatrics: Dr. P. Clubbe, Sydney. Naval and Military: Colonel C. Ryan, Melbourne. Dermatology: Dr. H. Harris, Sydney. Laryngology: Dr. R. Nolan, Sydney. A special discussion will take place on syphilis. The committee has circularised every practitioner in Australasia. In addition it has circularised all medical and social institutions, both State and private, and has information that will be embodied in a report to be laid before Congress. A review will be made of legislation in force in Australasia bearing on the subject, and the committee will bring forward its recommendations for consideration.

*Neglected Children.*

The annual report for Victoria states that the total number of deserted children who were a charge on the State on Dec. 31st, 1911, was 5634 and in 1912 it was 6288. The total number of deaths was 124. Of these, 88 were under 1 year old and 70 under 3 months. The medical officer states that many of these babies were in a deplorable state of ill-health and malnutrition and many were brought in a dying condition. Work under the Infant Life Protection Act was progressing satisfactorily. The system of boarding-out infants to a competent nurse, with the attendance of a medical officer always available and a trained nurse to supervise and direct, had been the means of saving many lives. There were 454 children placed in homes in this way, making 842 in all. The number of families deserted by fathers was 63, and the number of children so deserted was 149. An Act has been passed which would enable the department to reach fathers of this sort when similar legislation was adopted by the other States.

*Diphtheria in Victoria.*

A return of cases of diphtheria in the State of Victoria, received by the Board of Health in January, 1914, shows that 5367 cases were notified last year, compared with 5289 in 1912 and 5120 in 1911, the first year in which the greatly increased prevalence of the disease was noticeable. The spread of diphtheria during the last five years is evidenced by the fact that since 1909 the number of cases notified has increased by nearly 4000. The disease is considerably more prevalent in the country than within the metropolitan area, where there was last year a slight reduction in the number of cases compared to 1912, and a big decrease compared to the 1911 figures.

*Melbourne Medical School Jubilee.*

The arrangements for the celebrations are now complete. The jubilee functions will commence on Thursday, April 30th, with an inaugural ceremony in the Wilson Hall and in the evening a dinner. On Friday, May 1st, demonstrations will be given at the University and at the metropolitan hospitals, which will be continued on Saturday, May 2nd, and the celebrations will conclude with a theatre party the same evening. At a meeting of committee it was unanimously decided that a fund be established for the promotion of clinical research in the University schools. A definite resolution was worded:—

That this meeting reaffirms the desirability of establishing a University fund for clinical research as a memorial of the jubilee of the Melbourne Medical School, and suggests to the donors that at first the interest of the fund be applied to clinical pathological research at the clinical schools.

Dr. J. W. Barrett has offered £100 per annum for five years, and Dr. R. R. Stawell, Dr. S. V. Sewell, Dr. P. S. Webster, and Mr. G. A. Syme £50 each per annum for a similar term, while numerous lesser annual sums are promised.

*Health of Adelaide.*

According to the city health officer's annual report the estimated city population was 42,228, which shows an increase of only 305 persons over 1912. The true death-rate was 14·42 per 1000, and the infant mortality figure is placed at 63. Twenty-three houses were condemned as unfit for habitation and 1309 notices to repair were served during the year.

*Health of Brisbane.*

The annual report of the Government statistician for the city of Brisbane (ten mile radius) for 1913 states that there were 5092 births and 1943 deaths, giving general rates of 35·11 and 13·40 respectively per 1000 of population. The principal causes of death were—typhoid fever, 24; measles, 35; whooping-cough, 42; diphtheria, 21; phthisis, 143; cancer, 142; apoplexy, 65. Deaths under 1 year 154. The general health of Brisbane is satisfactory, and there is nothing to show that the climate has any detrimental effect on longevity or incidence of disease.

*Medical Honour.*

The New Year's list of honours includes the name of Professor Harry Brookes Allen, of the Melbourne University, who was the recipient of a knighthood. Sir H. B. Allen is a graduate of Melbourne, and has been connected with the medical school for over thirty years. He was for many years professor of anatomy and pathology, but latterly resigned the chair of anatomy, which was filled by Professor R. J. A. Berry. Sir H. B. Allen has also been for many years dean of the Faculty of Medicine in the University. He has likewise filled many other positions of distinction, including President of the Eighth Australasian Medical Congress. The news of his selection for a knighthood was received with much satisfaction throughout Australia.

Jan. 27th.

THE Finsbury and Islington Medical Societies are giving a dance at Prince's Galleries, Piccadilly, W., on Wednesday, March 25th, at which all medical men and their friends will be welcome. Dancing will begin at 9.30 P.M., and tickets, price 7*s.* 6*d* (including a buffet supper), may be obtained from any member of the societies or from the honorary secretaries of the dance committee: Mr. J. N. Glaister, 96, Upper-street, Islington, N.; Mr. J. E. Jackson, 15, Huntingdon-street, Barnsbury, N.; or Mr. W. F. Roe, 12, Northampton-square, E.C.

# Correspondence.

"Audi alteram partem."

## THE UNIVERSITY OF LONDON: EXTERNAL STUDENTS IN THE FACULTY OF MEDICINE.

*To the Editor of* THE LANCET.

SIR,—The Board of the Faculty of Medicine at their meeting of Feb. 12th passed the following resolution by 7 votes to 1, I being the only member voting against it.

That the medical degrees of the University of London should be open only to students who are students in the constituent colleges and schools of the University.

The resolution was designed to exclude the external students from the Faculty of Medicine and corroborates a similar resolution passed at a meeting of the Faculty held in 1909—a meeting when a bare quorum was present, and the vote might be regarded as a snap vote.

It will be seen that the resolution of the board out-Herods Herod, for it restricts all students of medicine to the colleges and schools of the University for the entire medical curriculum. Now the minimum time required by the regulations of the University of London for the qualifying degree is five and a half years. No other university in the world requires so long a residential qualification for any of its degrees, and it may be confidently affirmed that no other faculty in the University of London will ask for similar requirements. The avowed object of excluding the external student is to be found in the hope that by this regulation students, now external, will be compelled to study in the schools of medicine in London, and thereby the number of students in those schools will be increased. Now 388 out of 428 members of the Faculty of Medicine are teachers in the London medical schools and incorporated colleges. An increase of students in the schools means an increase, direct or indirect, of the emoluments of the teachers. Self-interest cannot then be excluded as one of the guiding motives of the antagonism to the external student. My colleague in the representation of external students in medicine on the Senate of the University, Sir Thomas Barlow, in open Senate in fact chaffed the Deans of the Medical Schools of London for being "shopkeepers," meaning thereby that they evinced a commercial cupidity for customers—that is, students. The motive is not so pretty that one wishes to parade it naked, and so it is usually presented with some fig-leaves of clothing, in the shape of arguments more or less disguising the real reason. I propose to examine some of these arguments, and I hope to persuade the Faculty of Medicine to reverse at its next meeting the finding of the Board which, as it stands, must clearly be revised by the Faculty.

It is alleged that it is unfair to graduates of medicine who have studied in London that men who have studied elsewhere shall have the distinction of the University degree conferred upon them for passing an examination when they have not studied in the London schools. It is curious that the defence of the graduates should thus be undertaken by the Faculty, two-thirds of which, as I propose to show, are not themselves graduates of the University; whereas Convocation, which consists entirely of graduates of the University, has

repeatedly opposed, and will continue to oppose, the extinction of the external students in any faculty. An analysis of the Faculty roll corrected to date, which has been obligingly furnished to me by the secretary of the Senate, reveals the following facts: (1) 337 out of a total of 428 persons—i.e., 78·7 per cent. of members of the Faculty are members of the Royal Colleges of Physicians or Surgeons; (2) 150 out of 428 persons—i.e., only 35 per cent. of the members of the Faculty—are graduates of the University.

The College qualification is in most cases taken as an adjunct to others. It is, in fact, an ornament, and, like the wearing of other ornaments, is an index to the personal preferences of the wearer. The figures at any rate show that a much larger number of persons are attracted to take the College qualifications than the University degree, and I fear it must be acknowledged that there is more affection displayed by the average man towards his University. It is therefore somewhat remarkable that the opponents of the reception of external students in the University are perfectly content to receive the external students in their own Colleges, for, of course, the examinations in the Royal Colleges are absolutely and of deliberate design external. Moreover, the universities of Oxford and Cambridge are content to examine students in the final subjects of the medical curriculum who have never attended a single lecture on those subjects in the Universities of Oxford or Cambridge. The final examinations in these Universities are therefore purely external, and these Universities are also content to give the *imprimatur* of their medical degree to students for studies which have been taken elsewhere. It has been urged in objection to this statement that the Universities of Oxford and Cambridge at least require that students for their degrees shall have passed three years at some previous time in residence at their Universities. I would point out that a separate degree, the B.A., is given for these studies, and it does not alter the truth of the statement that these Universities examine, and confer degrees, in the subjects of the final part of the curriculum without having given any instruction in these subjects to the students whom they examine. If, then, these old and illustrious foundations, the Universities of Oxford and Cambridge and the Royal Colleges in London deem it right and honourable to confer degrees upon the results of examination alone, it cannot be reasonably urged that it is not right and honourable for the University of London, which in comparison is a mere mushroom growth, to do so. Moreover, if it be unfair to give the cachet of the degree of the University of London to students who have not been taught in the London schools, it is equally unfair to deprive the students who have been so taught of the cachet of that degree, as is done in the case of students in the London schools who are taking the degrees of Oxford and Cambridge. These students are, deservedly perhaps, the special favourites of the London schools and are marked out for hospital appointments and honours; and it is singular that the Faculty who have shown themselves so anxious to create a monopoly for the London schools should be content to receive the solid emoluments derived from teaching Oxford and Cambridge students, and to be deprived of the kudos which is fairly their right for having taught these students, whose ultimate degree gives no indication whatever that they have studied in the London schools. One may adapt some famous lines to describe this curious attitude—

> So careful of the fee they seem,
> So careless of the honour due.

It is often stated, but the statement is erroneous, that there are at present no external students in the Faculty of Medicine. If one may use a name devised by the Royal Commissioners it may be correct to say that there are no "unattached" students in that Faculty; for, amongst other compelling facts, the regulations of the General Medical Council require that students of medicine shall pursue their studies in institutions recognised for that purpose. But these institutions are not confined to the area bounded by "a radius of 30 miles from the central office of the University" which is the statutory limit of the internal university. External students may be found within that area, but no internal students outside of it. I append a return which has been furnished to me by the officers of the University, showing the percentage of students for degrees in medicine who were classified as external in the Faculty of Medicine in the last 19 years. A consideration of this

*A Table Showing the Percentage of Medical Graduates Coming from Other than London Schools.*

| — | Total medical graduates. | M.B. | B.S. | M.S. | M.D. | Total provincial graduates. | Per-centage. |
|---|---|---|---|---|---|---|---|
| 1895 | 189 | 14 | 1 | 0 | 4 | 19 | 10·0 |
| 1896 | 168 | 9 | 6 | 0 | 4 | 19 | 11·3 |
| 1897 | 169 | 16 | 0 | 0 | 4 | 20 | 11·8 |
| 1898 | 159 | 14 | 7 | 1 | 3 | 25 | 15·7 |
| 1899 | 163 | 14 | 1 | 0 | 5 | 20 | 12·2 |
| 1900 | 143 | 15 | 4 | 0 | 7 | 26 | 18·1 |
| 1901 | 202 | 16 | 4 | 1 | 5 | 26 | 12·8 |
| 1902 | 169 | 11 | 5 | 0 | 3 | 19 | 11·2 |
| 1903 | 235 | 17 | 3 | 1 | 5 | 26 | 11·0 |
| 1904 | 219 | 12 | 3 | 1 | 2 | 18 | 8·2 |
| 1905 | 181 | 15 | 2 | 0 | 2 | 19 | 10·4 |
| 1906 | 192 | 19 | 1 | 1 | 4 | 25 | 13·0 |
| 1907 | 177 | 17 | 0 | 1 | 4 | 22 | 12·4 |
| 1908 | 191 | 20 | 0 | 2 | 5 | 27 | 14·1 |
| 1909 | 174 | 14 | 0 | 1 | 7 | 22 | 12·6 |
| 1910 | 167 | 14 | 1 | 0 | 11 | 26 | 15·5 |
| 1911 | 158 | 12 | 0 | 3 | 8 | 23 | 14·5 |
| 1912 | 141 | 11 | 0 | 1 | 6 | 18 | 12·7 |
| 1913 | 151 | 12 | 0 | 3 | 2 | 17 | 11·2 |

table will show that there has been no sensible diminution in the latter half of the period, when such diminution might be expected as a result of the foundation of the numerous new provincial universities which have sprung up in the last ten years. The argument, therefore, that the provincial student is sufficiently provided for and should be contented with the degree of his local university and should not presume to enter for a London degree unless he is prepared to pass five and a half years' study in the London schools seems to be unjustified by the facts, which show that the demand has remained fairly constant in the last 19 years, for which I present data. I have mentioned that the hope has been definitely expressed that some such regulation as that proposed by the Board will bring these provincial students into the London schools. I fear this hope is largely illusory, and that what will happen is that provincial students will not come to London at all, and those London teachers who are examiners

in the University will be thus deprived of the fees which they at present earn on account of these external students; the action of the Board of the Faculty is, in fact, comparable to that of the fabulous person who killed the goose that laid the golden eggs, which is the classical instance of insensate greed overreaching itself.

The Royal Commissioners reported against the admission of external students in the Medical Faculty, but at the same time created an overwhelmingly large and new class of students who will in reality be far more "external" to the University than any students have been in the past. If I read the regulations aright, it is contemplated that students, not being students of constituent colleges but of the so-called schools of the University, are to be examined and to be given degrees upon the results of examination by teachers who are to have merely nominal connexion with the University and are to be debarred even from sitting, as they at present do, upon the Faculty of Medicine. The control which the University will be able to exercise upon these examinations must be very shadowy, for it will be remembered that all that is required to constitute a school of the University is that the school shall admit one representative, selected by the Senate, to sit upon its governing body. At the present time the University accepts full responsibility for the choice of the syllabus and of the examiners and for the conduct of the examination; under the conditions indicated by the Commission such close supervision will no longer be exercised, and it may be as a natural corollary to this diminished supervision and control that the Commission desired to water down the responsibility of the University, which for the first time in its history is to give a degree to students whom its accredited professors and medical faculty have neither taught nor examined; and this may, indeed, explain the fantastic regulation which requires that the student shall add the name of his school to his degree. It is surprising that the teachers in those schools—and they must always form the large majority—which are not likely to be selected as constituent colleges, should not see the danger which they incur by destroying the external side of the University, towards which end the exclusion of the external student from the Faculty of Medicine is a long and important step. These schools will be in fact, if not in name, external schools, under the heel of a faculty entirely composed of their rival teachers in the constituent colleges.

The schools which are thus placed at such an unfair disadvantage cannot long survive these conditions, and are not expected by those who framed these conditions to have an existence which will be much prolonged after they come into force. Mr. Abraham Flexner, who is admittedly the chief begetter of the medical recommendations of the Royal Commissioners' report, leaves no doubt of his own opinions, which are very instructive reading in this connexion. He writes: "All work not carried on by teachers selected by the University or a university college of uncompromising academic character" (we are told elsewhere in the same report that University and King's Colleges alone in London satisfy this description) "amid conditions determined by the University, with ends set up by the University, is external work ..... in this essential sense the medical schools are external." "Ultimately," we are told, "the non-university medical school will become both superfluous and anomalous," but the kindly consolation is held out that "a useful, nay, a distinguished career" is still open to "the other hospitals" in the training of specialists and the cultivation of post-graduate studies (Carnegie Foundation for the Advancement of Teaching, Bulletin 6, chapter on Clinical Instruction in Great Britain).

It is naturally the desire of the Commission to withdraw the refuge which a strong external side as it now exists offers to the unprivileged schools, but it seems peculiarly fatuous that the schools which are likely to remain external in Mr. Flexner's sense should walk into the trap with open eyes. It surely becomes more than ever necessary to strengthen rather than weaken the defences of those schools against this new privileged class to which the Royal Commission gives such supreme power.

It will, I think, be agreed that the new "constituent colleges" will be the inheritors of the traditions and powers (the latter enormously magnified) of the present incorporated Colleges of the University, even though they may not actually be the same institutions. The incorporated Colleges have long had a preponderating influence on the present Academic Council and it will not be uninstructive to see how they have used that influence in the past; it will be an index to what the unprivileged schools may expect in the future, with the aggravation that the present checks on the action of the Academic Council will be largely removed. Professor Leonard Hill, in his minority report, handed in to the Royal Commission (Vol. II., p. 300), thus describes the present position: "The Senate has become divided roughly into two parties, a party which supports the policy of the University Colleges, and a loosely united opposition made up of those who wish to maintain the external side and the established examination test system, *and teachers who have united with this party to defend the interests of the non-incorporated schools*" (the italics are mine). Instances of this coöperation abound in the minutes of the Senate for the past eight years during which I have sat on that body, and I give three such in my own recollection.

1. In 1909 the Academic Council refused recognition of Dr. W. H. Willcox as a teacher of forensic medicine at St. Mary's Hospital. This refusal was challenged at the subsequent meeting of the Senate, and the Academic Council's action was reversed by the Senate, which was moved to mirth by the absurdity of refusing recognition in forensic medicine to the senior analyst of the Home Office. In the division list in the majority of 16 there voted 10 external representatives; in the minority of 12 there voted 8 members of the staffs of the incorporated Colleges. (Senate Minutes 1908–1909, No. 1950.) 2. In 1912 the Royal Dental Hospital applied for recognition as a school of the University in the Medical Faculty. The Academic Council vetoed the recognition, which was, however, carried against that Council at the subsequent meeting of the Senate by a combination of teachers at non-incorporated Colleges and external representatives. 3. An attempt was made by the Academic Council at the very last meeting of the Senate to restrict recognition in the Medical Faculty in future to teachers at schools of the University, a regulation which would exclude the great special-hospital schools, such as Brompton, Queen-square, Moorfields, and others. This attempt

was defeated by a combination of non-incorporated teachers and external representatives.

It may be objected that these are trivial details of recognition of teachers and schools. But this is practically the only power concerning the schools vested in the present Academic Council. Very much more important and far-reaching powers are given to the new Academic Council and Faculties, from which the teachers at unprivileged schools of the University are to be excluded. And yet these teachers are blind enough to endeavour to throw down what has been their chief bulwark in the past against aggression which will be tenfold more dangerous and rampant under the new constitution of the University.

I hope I have said sufficient to make the Faculty pause in its ill-considered efforts to abolish the external student in the Medical Faculty. He is very unlikely to be abolished in any other Faculty, and by no Faculty is the extinction of the external side of the University less to be welcomed than by the Medical Faculty.

I am, Sir, yours faithfully,

E. GRAHAM LITTLE, M.D. Lond., F.R.C.P. Lond.,
Member of the Senate of the University of London.

Wimpole-street, W., Feb. 23th, 1914.

## "LORD LISTER: HIS LIFE AND WORK."

*To the Editor of* THE LANCET.

SIR,—Lord Lister once wrote that "next to the promulgation of new truth, the best thing, I conceive, that a man can do is the recantation of public error." The same, I submit, applies to a paper, and especially to a paper devoted to science. I regret, therefore, that in your review of my book upon Lord Lister you should refuse to follow this precept, and seek to throw blame upon me as giving a misleading description of THE LANCET's one-time attitude. Your paper wrote of Mr. Lister in 1877 as being "like a man who in the excitement of enthusiasm raves at the false creations of his heat-oppressed brain," and sentences of a like bitterness, which I shall refrain from quoting. I submit that a more proper attitude on your part would have been to refrain from an attempted defence of such writing.

May I take this opportunity of expressing my regret that I did not mention the pioneer work of Sir Henry Howse. This omission was due to forgetfulness, but is without excuse in that as a student I witnessed this surgeon's faithful adherence to the teaching of the master.

I am, Sir, yours faithfully,

G. T. WRENCH, M.D. Lond.

Mussoorie, India, Feb. 9th, 1914.

*** Dr. Wrench's description in his book of the attitude of THE LANCET was inaccurate, and his quotation does not alter the fact.—ED. L.

## "THE FAMILY ENCYCLOPÆDIA OF MEDICINE."

*To the Editor of* THE LANCET.

SIR,—I wish through the medium of your columns to express my deep regret that while I was out of town, ill, the publishers of my "Family Encyclopædia of Medicine," in an excess of zeal to make all due acknowledgment of the assistance a large number of my friends and acquaintances in the profession have given me in the way of revising and correcting special articles in the book, have advertised their names in a manner most contrary to the ethics of the profession.

It is scarcely necessary to say that both I myself and those whose assistance I have to acknowledge in my preface were quite unaware that their names were to be advertised in this fashion.

I have also taken steps to assure myself that in the future when drawing up advertisements for the "Family Encyclopædia of Medicine" the publishers will have due regard for the ethics of the medical profession. I am, Sir, yours faithfully,

HUGH H. RIDDLE.

Whiteheads-grove, Chelsea, S.W., March 2nd, 1914.

*To the Editor of* THE LANCET.

SIR,—On the evening of the publication of the "Family Encyclopædia of Medicine" I wrote to the Amalgamated Press demanding the withdrawal of my name both from the book itself and all advertisements of it, and an apology from them for the unwarranted use of my name. The extent of my connexion with the matter is that at the personal request of Dr. Riddle I consented to look over a few pages of his MSS. and made therein a few corrections. I never at any time consented to the use of my name as an "assistant" or indeed in any way whatsoever. I am, Sir, yours faithfully,

Wimpole-street, W., March 3rd, 1914. HUGH THURSFIELD.

*To the Editor of* THE LANCET.

SIR,—I observe that my name appeared yesterday in the advertisement columns of the public press as having assisted in the preparation of a certain popular medical encyclopædia which is to be seen on all the railway bookstalls. I beg to inform your readers that when I promised to read the proof sheets of one section—sheets which I have not yet seen—I was under a misapprehension as to the character of the work in question. My name has been publicly advertised without my knowledge or consent. I have forbidden any further mention of it and have withdrawn my promised assistance.

I am, Sir, yours faithfully,

London Hospital, E., Feb. 27th, 1914. PAUL FILDES.

*To the Editor of* THE LANCET.

SIR,—On calling on a patient to-day who had had considerable experience in the advertisement of theatrical pieces she said she was lost in envy at the wide publicity secured for the professional ability of a large number of members of my profession by one of the most notable advertisements she, as a member of the general public, had ever seen. She added that she had always understood that reputable members of the medical profession avoided such a public record of their names, appointments, and qualifications. With this, she handed me a largely circulated daily paper containing the advertisement of a Family Encyclopædia of Medicine, with an imposing list in bold type of more than 30 physicians and surgeons, among whom are to be seen the name of two baronets, nine knights of one or another variety, and a goodly crop of physicians and surgeons the majority of whom are Fellows of the Colleges of Physicians and Surgeons. I enclose the advertisement for your inspection. Then follows the ingenuous remark that "It is a pleasing sign of the times that so many leaders of the medical profession should have coöperated so whole-heartedly

in this notable effort to enlighten the lay public regarding the treatment and prevention of disease." An additional allurement is held forth in the fact that the work, which is published fortnightly and may be had for *7d.*, contains more than 2000 prescriptions!

I do not suggest that the more or less distinguished contributors to this philanthropic (!) publication are directly responsible for this blatant advertisement of the departments of medicine in which they practise, but I venture to think that it will be the opinion of most of the profession that the spirit, if not the letter, of the prohibition against such advertisement is infringed by their names appearing, however little on their own initiative, in this broadcast trade circular.

From time to time we find some struggling doctor accused of conduct infamous in a professional sense because he has "placed his goods in the window" in some much more obscure manner, and I fail to see that the conduct is any less infamous professionally because the goods of these more or less eminent "specialists" are placed in the window for them by someone else. Personally, I think the attention of the Censors of the Colleges should be called to this particular advertisement, and hope, Sir, that your inserting this letter in THE LANCET may have that effect. I enclose my card, and am, Sir, Yours faithfully,

Feb. 26th, 1914. F.R.C.P.

*** A meeting of the medical men concerned has been summoned, we are informed, when their course will be decided upon.—ED. L.

## FRACTURE OF THE EXTERNAL MALLEOLUS.

*To the Editor of* THE LANCET.

SIR,—Dr. B. Whitchurch Howell asks in THE LANCET of Feb. 28th three questions in regard to the removal of the external malleolus when broken. They are easily answered:—

1. At present I only remove the malleolar fragment when it is displaced.

2. There is no sign of varus or valgus in the patients who have had the malleolus excised.

3. There is no evidence of displacement of the peronei tendons. The tendon sheaths keep them in position. I am, Sir, yours faithfully,

JOHN BLAND-SUTTON.

Brook-street, Grosvenor-square, W., Feb. 28th, 1914.

## RADIOGRAPHY OF THE SELLA TURCICA.

*To the Editor of* THE LANCET.

SIR,—At the last meeting of the Electro-Therapeutical Section of the Royal Society of Medicine consideration for the crowded state of the agenda list made me refrain from offering the following suggestion for centring the sella in the directly transverse rays from the tube. It will, I think, be more certain, as well as easier, than Mr. S. Gilbert Scott's shot, or Dr. Finzi's sixpences, while satisfying Dr. Parkes Weber's requirements as to giving visible evidence on the plate itself that the centring has been properly done.

Take two metal curtain rings of about 1½ inches in diameter, and to each attach two small strips of adhesive plaster. Fix them by these strips in the proper position with reference to each auditory meatus, and then arrange head and tube so that the screen shows the rings concentrically placed one apparently within the other. The central rays will then be truly transverse and unobstructed, and the shadow of the rings on the plate will prove the fact. I am, Sir, yours faithfully,

West Chapel-street, W., Feb. 24th, 1914. W. HAMPSON.

## A COMPARISON OF THE ACTIONS OF CHLOROFORM AND ETHER ON THE BLOOD PRESSURE.

*To the Editor of* THE LANCET.

SIR,—I note in your issue of Feb. 28th a paper by Dr. H. P. Fairlie with this title in which he quotes my conclusions published in THE LANCET in 1908. He mentions that I pointed out that no form of stimulant should be given previous to or during the course of an operation. He also quotes me as stating that ether should be given as an anæsthetic. He then states that to his mind these statements are quite contradictory, for while disapproving of ether as a stimulant I recommend it as an anæsthetic "on account of the fact that it is a stimulant." Now, in my paper, I laid careful stress upon the fact that ether should not be given *because* it is a stimulant, but *in spite* of it as it is less toxic than chloroform. My actual words were: "The absence of shock is not in these cases due to any stimulating effect of the drug [ether], for, as has been pointed out, when shock is present the centres fail to react to any form of stimulant. In fact, stimulants only further exhaust the centres and aggravate the condition." I am, Sir, yours faithfully,

ALBERT J. WALTON.

Weymouth-street, W., Feb. 28th, 1914.

## METHODS OF INCREASING THE ACCURACY AND DELICACY OF THE WASSERMANN REACTION.

*To the Editor of* THE LANCET.

SIR,—Dr. Thiele and Dr. Embleton in a paper in THE LANCET of Feb. 21st state their conclusion that "the use of cholesterin ..... in antigens for the Wassermann reaction is not only unnecessary, but introduces a very serious source of error." These authors have allowed themselves to be led into a very rash and totally erroneous generalisation. The introduction of cholesterin into syphilitic antigens was originally advocated in a paper by myself along with Dr. Cruickshank and Dr. McKenzie.[1] The statement of Dr. Thiele and Dr. Embleton as applied to our antigen, employed in the fashion which we recommended, is absolutely wrong. We showed that the introduction of cholesterin into an alcoholic solution of ox liver "lecithin" greatly enhanced the antigenic power of the latter—i.e., the property of deviating complement in the presence of syphilitic serum, but had practically no effect on the inhibitory action of the antigen either by itself or in the presence of normal serum. In addition to providing a means of increasing the antigenic power of certain lipoid solutions by means of cholesterin, we were also enabled in this way to establish a new criterion for the detection of syphilitic sera, which has proved valuable in confirming weak positive reactions. The original estimate of our method has been substantiated by nearly a dozen workers in the examination of over 3000 cases here and by other observers elsewhere. The value of the addition of cholesterin

[1] Journal of Pathology and Bacteriology, vol. xiv., 1910, p. 484.

to antigens has also been shown by the procedure being adopted by such experienced workers as Sachs, McIntosh and Fildes, and Walker and Swift. With regard to the other observations of Dr. Thiele and Dr. Embleton on the effect of autolysis, the action of cholesterin by itself, &c., it may be remarked that the greater part of these results had been previously published by others, and a full account of our own work on these points and also of that done elsewhere is recorded in Browning and McKenzie's "Recent Advances in the Diagnosis and Treatment of Syphilis." I hope to have an opportunity of dealing more fully with the questions raised by Dr. Thiele and Dr. Embleton in an early issue of your journal.

I am, Sir, yours faithfully,

CARL H. BROWNING.

Laboratory of Clinical Pathology of the University and Western Infirmary, Glasgow, March 3rd, 1914.

*To the Editor of* THE LANCET.

SIR,—In your issue of Feb. 28th Dr. J. McIntosh and Dr. P. Fildes have criticised our paper on the "Wassermann Reaction" published in THE LANCET of Feb. 21st, 1914.

Dr. McIntosh and Dr. Fildes have entirely missed the purport of our paper and so have expressed their absolute dissent from our conclusions on a subject which they themselves have never investigated. We fully agree that the addition of cholesterin greatly increases the apparent antigenic value of an antigen and are fully cognisant of the work of Browning and Mackenzie, Sachs, and themselves. We maintain, however, that the action of cholesterin is not specific. We have shown[1] that it enhances the pre-existing anticomplementary property of some non-syphilitic sera just as it enhances the anticomplementary power which develops when a syphilitic serum is exposed to an antigen. This is the point that Dr. McIntosh and Dr. Fildes have failed to deal with in their papers. We do not deny that the use of cholesterin with an alcoholic heart antigen, or a weak lecithin antigen, greatly increases the sharpness of the reading, and has shown up cases which would otherwise have been missed, but this addition is only necessary when the true antigenic power of the antigen is weak—in fact, the addition of cholesterin is the confession of a weak antigen.

By the method of Dr. McIntosh and Dr. Fildes the true antigenic value of the antigen is never ascertained.[2] It is taken for granted. It does not necessarily follow that the different samples of antigens obtained by their method are of constant value; in fact, it has been shown by Noguchi and ourselves that even with a uniform technique the antigenic value of the extracts from the same type of organ is not constant. By our method[3] we can always rely on getting an antigen which is so powerfully antigenic that it requires no aid from cholesterin to show the complement fixation that has occurred; it is not anticomplementary, so that large amounts can be used, and it is not hæmolytic.

With regard to our statement that the Wassermann reaction as ordinarily performed is apt to give erroneous results with corpse sera, &c., we should just like to draw attention to the latest communication appearing in connexion with this by Boas and Eiken.[4] These observers examined 540 corpse sera, and using 200 c.mm. of the sera they obtained so many positive results that they regarded the test as useless; using 100 c.mm. of serum they obtained negative results in 17 per cent. of cases where there was active untreated syphilis.

Lubarsch[5] out of 109 corpse sera which gave a positive Wassermann reaction had 41 which were from non-syphilitic cases, these latter forming 7·3 per cent. of the total number of sera examined. M. Rabinowitch,[6] examining 3000 normal sera found that when stored all would give a positive Wassermann reaction, thus showing that all sera when they become anticomplementary can give a positive reaction with an anticomplementary antigen. Fildes[7] also reported 15 per cent. of positive reactions in corpse sera.

In conclusion, we have brought forward a powerful antigenic substance, so powerful that three-millionths of a gramme will give complete fixation in the Wassermann reaction. This antigen is easily obtainable and quite stable, and has no interfering anticomplementary or hæmolytic factors. We hold that it is absolutely unnecessary to use cholesterin antigens when such a powerful non-anticomplementary antigen can be obtained. These cholesterin antigens may give rise to a source of error in that occasionally a normal person may be diagnosed as syphilitic.

We are, Sir, yours faithfully,

FRANCIS H. THIELE.
DENNIS EMBLETON.

Bacteriological Laboratory, University College Hospital Medical School, London, March 2nd, 1914.

[1] Zeitschrift für Immunitäts-Forschung, vol. xvi., Heft 4, p. 430 &c., 1913.
[2] Zeitschrift für Chemo-Therapy, 1912, vol. i., p. 79.
[3] THE LANCET, Feb. 21st, 1914, p. 527.
[4] Boas and Eiken: Hospitalstidende, No. 32, 1913.
[5] Lubarsch: Jahresberichte für aerztliche Fortbildung, 1911.
[6] Rabinowitch: Centralblatt für Bakteriologie, Nov. 28th, 1913.
[7] Fildes: Brit. Med. Jour., Dec. 13th, 1913, p. 1557.

## ASSOCIATION OF ASSISTANT MEDICAL OFFICERS OF ASYLUMS, ENGLAND AND WALES.

*To the Editor of* THE LANCET.

SIR,—I shall be much obliged if you can find space in your next issue to publish the fact that the first annual general meeting of the above association will be held at the Westminster Palace Hotel, London, on Saturday, March 14th, 1914, at 3.15 P.M.

I am, Sir, yours faithfully,

F. J. STUART,
Honorary Secretary.

Berry Wood, Northampton, March 1st, 1914.

## THE TREATMENT OF COLI-CYSTITIS BY FLUID ELECTROLYSIS.

*To the Editor of* THE LANCET.

SIR,—Since the appearance of my paper in THE LANCET of Feb. 14th I have been informed of the work of Professor E. W. Ainley Walker and Dr. Murray[1] on the lengthening and other characters induced in typhoid and colon bacilli by their cultivation in media containing aniline dyes. There is also another work, by G. Dreyer, S. G. Scott, and E. W. A. Walker, dealing with an induced change to Gram's stain of various bacteria after treating them with different chemical substances.[2] These researches are of great interest and value. They would have been included in my paper if the means of altering bacterial characters had been its subject. Nevertheless, priority of observation that such new characters can be induced in bacteria is

[1] Brit. Med. Jour., July 2nd, 1904.
[2] Journal of Pathology, vol. xvi., 1911.

clearly due to these authors, and I suppose my reference to it as a new feature may only apply to the means I employed—viz., electrolysis. It is intended to demonstrate these features at the Pathological Section of the Royal Society of Medicine shortly.—I am, Sir, yours faithfully,

London, W., March 2nd, 1914. CHARLES RUSS.

## THE AFTER-HISTORY OF A CASE OF SPLENECTOMY.

*To the Editor of* THE LANCET.

SIR,—In THE LANCET of Sept. 13th, 1913, I reported a case of splenectomy. I beg now to submit the following additional notes.

The patient, who resides in a malarious district, returned to the Colonial Hospital on July 7th, 1913, for the purpose of having his blood examined to note any changes which might have followed the operation. On admission he appeared to be in good health, his weight being 98 lb., and no enlargement of the lymphatic glands or any other abnormal condition being found. On the morning of July 12th, while in hospital, he developed an attack of malarial fever which lasted five days. Malarial parasites—benign tertian forms—were found in the blood, and the patient was treated with quinine. On July 22nd, five days after the cessation of the fever, Dr. J. R. Dickson, the bacteriologist to the hospital, kindly examined the blood for me and reported as follows:—"Total count: Red blood corpuscles, 3,800,000 per c.mm.; and white blood corpuscles, 14,000 per c.mm. Differential count, percentages: Polymorphonuclears, 54·2; small lymphocytes, 12·2; large lymphocytes, 25; mononuclears, 4; transitionals, 2·8; and eosinophiles, 1·8." The patient was discharged on July 23rd, and was readmitted on Oct. 8th with a history of fever, headache, giddiness, epistaxis, and malaise for three days. On admission his general condition was good, and examination of the organs revealed nothing of note. His temperature on admission was 99·8° F.; the tongue was coated with a brown fur and inclined to be dry. Examination of the blood showed the presence of malarial parasites of the subtertian form. The fever yielded to quinine on Oct. 12th. Six days after the fever had apparently been got rid of the bacteriologist examined the blood and submitted the following notes:—"Total count: Red blood corpuscles, 3,096,300 per c.mm.; white blood-corpuscles, 7000 per c.mm.; and hæmoglobin, 78 per cent. Differential count, percentages: Polymorphonuclears, 56; small lymphocytes, 11; large lymphocytes, 13; mononuclears, 13; transitionals, 7; and eosinophiles, *nil*. A total of 320 leucocytes were counted. Many normoblasts were present, some with dividing nucleus." The patient was discharged well on Nov. 8th, and was told to return in three months. His weight on Oct. 30th was 104½ lb. He came back on Jan. 22nd, 1914, in excellent health, and reported that he had had no fever since his discharge. There was nothing of note to record. Dr. Dickson again very kindly made a blood examination on Jan. 24th, and reported as follows:—Total count: Red blood corpuscles. 4,488,000 per c.mm.; white blood corpuscles, 12,000 per c.mm.; and hæmoglobin, 80·0 per cent. Differential count, percentages: Polymorphonuclears, 54·5; small lymphocytes, 15·0; large lymphocytes, 12·5; large mononuculears, 7·5; eosinophiles, 10·0; and transitionals, 0·5. The patient was discharged on Jan. 26th; his weight on that day was 110 lb.

I am, Sir, yours faithfully,

R. SEHEULT, M.D. Edin.,
Resident Surgeon, Colonial Hospital, Port of Spain, Trinidad, B.W.I.

Feb. 2nd, 1914.

## A NATIONAL MEDICAL SERVICE.

*To the Editor of* THE LANCET.

SIR,—I must leave Mr. C. A. Parker to settle with you as to whether in your reference to the extreme importance of "free choice of doctor" in the recent leading article on a State Medical Service you were discussing the question only from the point of view of the one-sided free choice, an infinitesimal dose of which he now admits is all that could be secured under a whole-time salaried service. But I should like to assure Mr. Parker that I have no desire to import any prejudice into the consideration of this question. I am convinced that he and his colleagues in the State Medical Service Association are working very earnestly to secure what they consider to be an improvement in medical conditions, and I thought your readers were entitled to get to the bottom of the apparent contradiction between the views as to "free choice" expressed by different members of the association when pressing their scheme upon us. To understand this anomaly it seemed necessary first to discover the reason for the hatred of free choice which is openly avowed in many quarters. I believe I am right in attributing it to an honest objection to all forms of competition which is generally found only amongst extreme Socialists and to a real distrust in the growing power and influence of medical men which has frequently been expressed with great vigour by Mr. Bernard Shaw. Nothing will be gained in our discussion by shutting our eyes to these facts. No one worth convincing would oppose a whole-time salaried service if it was for the general good, merely because it also at the same time pleased the very small sections of the community who hold these peculiar views about doctors and competition. Incidentally it is as well, perhaps, that Mr. Parker and others whose views he shares as to the evils of competition should recognise that the establishment of a whole-time salaried service will not abolish competition, but will merely alter its basis. The salaried doctor may not be tempted to please his patient in order to increase his opportunities of doing useful work, but he will certainly be exposed to temptation to please his employer in order to compete with his fellows in securing a better paid or more comfortable job. He may not be tempted to be sympathetic with sick persons in order to increase his remunerative occupation, but he will certainly be tempted to be unsympathetic with them in order to compete with his fellows in securing a greater amount of leisure. Personally I have no fear that for the vast majority of medical men these temptations under a whole-time service would prove detrimental to their good work any more than I believe a temptation to please the patient is a dangerous factor in the panel system, but I claim that those who see dangers of what they call brute competition in one system must not shut their eyes to, or endeavour to hide from us, the existence of similar dangers in the other. But if I am asked whether it is better to run the risk of a doctor being tempted to please a patient or please some person or body employing

him to treat that patient, I unhesitatingly reply that it is better that he should be tempted to please the patient.

May I turn now to the question which Mr. Parker says in the last paragraph of his letter this week he really wishes to raise—viz., whether the present method of bringing the profession into touch with disease is the best possible for securing a healthy nation? It is, of course, a very interesting question, but I really cannot admit that it is the question which we have been clearing the ground in order to discuss. The real question surely we want to get to grips with is, "Is a whole-time salaried service of medical attendants the best method of bringing the profession into touch with disease?" I am glad to have the opportunity Mr. Parker gives me of protesting against the habit of certain medical reformers of claiming that they have proved the merits of their particular reform by showing that there is something wrong with existing conditions. To prove that a particular therapeutic measure is necessary it is not sufficient to show that the patient is really ill. If everyone was agreed that our present medical methods were bad it would not in the least prove that a whole-time salaried service of medical attendants would be good. As a mere matter of logic it might be much worse, and I for one think it would be. But because I do not like his particular remedy Mr. Parker must not accuse me of being "content with present methods." I think it is likely that I am quite as discontented with things as they are as Mr. Parker is.

It is not a question of who is content or not content with present methods, but whether a whole-time salaried medical service is the best possible way of bringing the profession into touch with disease. Can Mr. Parker dispel the belief that many of us hold that such a service would greatly increase the natural reluctance of large numbers of patients to seek advice from, and place themselves under the discipline of, the medical profession? Does Mr. Parker believe that without the willing coöperation of our patients our professional services can be of any avail? Or does he share the opinion of some Socialists that medical attendance should not only be free but also compulsory?

I am, Sir, yours faithfully,

LAURISTON E. SHAW.

Harley-street, W., March 2nd, 1914.

*** We believe that the majority both of the public and of the medical profession would be largely influenced in their attitude towards a State Medical Service by the difficulty of preserving "free choice" approximately as it now exists. —ED. L.

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*To the Editor of* THE LANCET.

SIR,—Mr. Parker is quite welcome to any advantage he may imagine he has derived in this controversy by taking exception to my use of the word *uniform*. Everyone knows that in Government services there are a certain number of officials who are very much better paid than the rank and file, though few will agree that these fortunate exceptions attain their position only through their "seniority" and the "value of services rendered." In all Government services I am acquainted with there is a fair uniformity in the salaries paid to officials of the same grade, and in none such a medley as would result from 20,000 panel practitioners being enrolled as State officials with salaries in proportion to the number of panel patients they possessed at the time. I cannot help regarding the enumeration of differences between panel doctors at the present time as misleading. In spite of the subtle distinctions, they are all of one grade and equal, and in any Government service would fairly claim to be treated alike. There is no seniority with regard to doctors on the panel, and if any of their assistants are on the panel the Insurance Committee must treat them precisely in the same manner as their principals. The only real difference that would exist between them would be that some would have more panel patients than others.

My contention with regard to Poor-law patients may be ludicrous in Mr. Parker's eyes, but it is none the less quite accurate, and I should advise him to look up the enactments he mentions and examine a little more closely what is meant by "settlement" in a Poor-law sense. I can assure him that if he will consult any clerk to a board of guardians, or even relieving officer, he will find that outdoor medical relief must be granted immediately, wherever the poor person happens to be, quite regardless of any question of "settlement." The "free choice" of the poor person is on the whole superior to the "free choice" of Mr. Parker, for the Poor-law medical officer he might select in this manner would be compelled to accept him, even if he already had 2000 patients.

I was quite unaware of Mr. Parker's article in the *Fortnightly Review* till he courteously sent me a copy, and I willingly withdraw my accusation that he is regardless of our vested interests. At the same time it must not be supposed for a moment that I approve of his way of protecting them. With regard to the question which he says he wished to raise, and which I have not answered —"whether the present methods of bringing the profession into touch with disease and of dealing with it were the best possible methods for securing a healthy nation"—I can reply in a very few words.

As one who consistently opposed the National Insurance Act as long as opposition was of any possible use, my answer must be emphatically in the negative. But because I condemn the present system as one faulty in the extreme, it is no reason why I should approve of another, in my opinion, many degrees worse. If it be urged that this is purely destructive criticism and that he who would destroy should have something to put in its place, I would refer Mr. Parker to the views of his brethren throughout the United Kingdom as expressed by the British Medical Association during the passage of the recent Act. It was along that path that Mr. Parker's ideal might have been found, and in my opinion a much larger measure of it would have been attained in that way than by any scheme to socialise medical practice. The only sound line of medical progress is along the beaten track that has been trodden for generations. In my own lifetime I have seen enormous advances, which would no doubt continue under our present system without striking out a new path altogether. Because the exigencies of modern times have necessitated large public medical services it is no reason why a large portion of the community should be deprived of the services of private practitioners. No doubt the Poor-law medical service is a socialisation of medicine to a certain extent, but it chiefly deals with a class of the community that is outside the purview of private practice. Certain reformers have suggested that the principles of the Poor-law should be applied to the great bulk of the working population of the country, and if ever a State medical service came into being it would more probably be developed

on similar lines, rather than in the manner suggested by Mr. Parker.

Visions, unfortunately, do stimulate public opinion, and public opinion can give rise to Governments that may be good or bad; so that a time may come when statesmen of the type of Keir Hardie and Will Thorne may rule our political system; then, in a Socialist state, medicine, together with every other art and science, will have to submit to the reign of Collectivism. Many of us, however, congratulate ourselves that we shall probably not live to witness the experiment.

I am, Sir, yours faithfully,

Hackney-road, N.E., March 1st, 1914. MAJOR GREENWOOD.

## WHAT IS CHAULMOOGRA OIL?

*To the Editor of* THE LANCET.

SIR,—In view of the renewed interest which is being taken in chaulmoogra oil and "antileprol" (an extra refined form of chaulmoogra oil) as a curative or alleviative in leprosy, it is important to draw the attention of the medical profession, superintendents of leper asylums, governments, and the drug trade to the fact that nearly all the so-called "chaulmoogra oil" upon the European market is spurious or adulterated. The true chaulmoogra oil is expressed from the seeds of Taraktogenos kurzii. In 1912 the crop of Taraktogenos kurzii seeds failed almost completely. Some firms of chemists, being unable to forego the temptation of high profits, began in 1913 to ship the oil obtained from seeds of Hydnocarpus wightiana as "pure chaulmoogra oil."

Nearly all the large European druggists were deceived; there is practically no genuine chaulmoogra oil at present on the European market, nor has there been for the past 18 months. Very large quantities of spurious oil have been imported and retailed, and many leading firms have been victimised. The substitute, Hydnocarpus wightiana, is similar in composition and appearance. It, however, has little therapeutical value in leprosy, and its cost in India is about one-third that of the true oil (Taraktogenos kurzii).

I have drawn the attention of Sir Malcolm Morris, who is now in India, to the facts, and also that of the Colonial Office. I have forwarded specimens of the true and false oils to Mr. Martindale, Mr. Parry, and Mr. Squire, and to most of the firms concerned. That some of these firms do not recognise the gravity of the fraud upon a particularly hopeless people like lepers is obvious from the letters which I have received. One Indian firm, while admitting that their oil is probably from the Hydnocarpus, announce their intention of continuing to sell it as "guaranteed pure."

The Taraktogenos kurzii tree occurs only in the Chittagong Hill tracts, Burma, and parts of Assam. The Governments of Bengal, Burma, and Assam have leased out the *sole* right of collection of these seeds in the forests concerned to a company whose representatives in London are Messrs. Bulloch Brothers and Co., Limited, of 13, Fenchurch-avenue, E.C. Leper asylums and Governments and all charitable institutions can obtain from them pure cold-drawn chaulmoogra oil (expressed from seeds of Taraktogenos kurzii) at a very cheap rate.

I am, Sir, yours faithfully,

ERNEST E. FRANCIS, M.R.C.S. Eng., L.S.A. Lond.,
Chief Medical Officer, Assam-Bengal Railway.

*** Mr. Francis encloses copies of the correspondence which has ensued upon his making representations to various firms of chemists and druggists.—ED. L.

## THE NATIONAL INSURANCE ACT.

### THE DEPARTMENTAL COMMITTEE ON ALLEGED EXCESSIVE SICKNESS CLAIMS.

THE Departmental Committee on Alleged Excessive Sickness Claims having asked that evidence might be submitted to it on behalf of the London Insurance Committee, that body on Feb. 26th appointed its chairman (Mr. J. A. Dawes, M.P.) to give evidence, and approved a draft statement of its views. In regard to the work of the medical referees, the committee decided to express the opinion that it was not necessary for insured persons to have the right of appeal to the referees against the opinion of their doctor, because the case of an insured person who had been refused a certificate by his own doctor was so dubious as not to justify the right of access to a medical referee. In the case of the medical practitioner, however, the committee thought there should be such right of access. Although no formal representations had been made on this point by bodies representing the profession, a large number of communications had been received from individual practitioners asking for the right of access to the referee. It was a matter for consideration whether the action of Approved Societies in referring cases to the medical referee without consulting the panel practitioner did not tend to create resentment on the part of the practitioner. The question of the incapacity of an insured person in the case of an Approved Society appeared to take the form of whether a certificate furnished by a medical practitioner should be accepted without question. It had not always been easy to appreciate the reason given by an Approved Society for doubting the accuracy of a medical certificate. In a large number of cases the reason advanced had been either "prolonged duration of illness" or "question of total incapacity." If the practitioner had been approached first he would doubtless have supported his certificate with further information. The desirability of the Approved Society first consulting the panel practitioner was particularly apparent in cases where the only reason for the society referring the case to the referee had been that a lay "sick visitor" had doubted the practitioner's certificate. A *bonâ fide* reason should be required of an Approved Society for referring an insured person to the referee. The committee further expressed the opinion that the appointment of referees should continue to be made by the Insurance Committee in order that records might be classified and greater uniformity be secured in the issue and acceptance of certificates. The committee decided to place before the Departmental Committee a number of statistics from which we take the following items; the figures relate to the period ended Jan. 11th, 1914:—

| | |
|---|---|
| The number of doctors on the panel | 1475 |
| The number of doctors in the area in general industrial practice who are not on the panel | 500 |
| The greatest number of insured persons on any individual doctor's list (the doctor has since taken a partner) | 5177 |
| The average number of insured persons on the lists of all the doctors | 909 |
| The number of doctors (including practitioners in partnership) who had on their list— | |
| (*a*) Less than 500 insured persons | 500 |
| (*b*) Between 500 and 1000 | 261 |
| (*c*) Between 1000 and 1500 | 189 |
| (*d*) Between 1500 and 2000 | 151 |
| (*e*) Between 2000 and 2500 | 84 |
| (*f*) Between 2500 and 3000 | 50 |
| (*g*) Over 3000 | 48 |

| | |
|---|---|
| The number of insured persons— | |
| (*a*) Who failed to select a method of treatment (approximately) | 228,000 |
| (*b*) Who elected to receive treatment through an approved institution | 3233 |
| (*c*) Who were allowed to make their own arrangements | 1549 |
| The number of cases of change of doctor by consent during the year (approximately) | 7480 |
| The number of cases of change of doctor at the end of the year | 12,439 |

Some discussion took place as to the accuracy of the estimate of 500 as the number of doctors in general industrial practice who were not on the panel, and it was generally agreed that 1000 would be a more accurate figure.

### HOSPITALS AND THE NATIONAL INSURANCE ACT.

At this time of the year, when throughout the country balance-sheets for 1913 and estimates of liability for 1914 are coming under consideration, it is natural to find comment upon the effect which the Act is believed to have upon hospital finance. The past financial position is considered and the future surmised. At the recent annual dinner of the Hospital Saturday Fund reference to the effect of the Act was made by the Chairman, by Sir Savile Crossley, and by Sir Reginald Acland in speeches which attributed a falling off of income, in part at least, to the operation of the Act, though the speakers were able to maintain a hopeful attitude with regard to the future. At the annual meeting of the qualified contributors to the Glasgow Royal Infirmary Lord Provost Stevenson, who presided and moved the adoption of the report, referred to the effect of the Act in reducing the number of out-patients, but stated that the number of serious cases treated in the infirmary was being more than maintained. The number of out-patients had been reduced by about one-third, which corresponded to the estimated number being treated under the Act: and as the honorary staff of the hospital, who were treating the remainder, had not been diminished in number, the patients must be receiving fuller attention. He commented upon the unfairness of medical men on the panel sending to the infirmary patients whom they should treat themselves, but expressed no anxiety as to the financial position of the infirmary, which appeared to be satisfactory. At Bootle, at the annual meeting of subscribers to the Borough Hospital, reference was made to the difficulty experienced in educating insured persons to have recourse to medical men on the panel instead of going to the hospital as they were accustomed to do. The hospital had suffered considerable loss of income, which was attributed, in part at least, to the stoppage of weekly collections among working men now called upon to pay their quota under the Insurance Act. The committee desired to refute the idea expressed by some that the need for the hospital was lessened by the Insurance Act. At the annual meeting of the subscribers to the Ayr County Hospital, the report submitted showed that the number of patients treated at the dispensary was 383, a decrease of 683. The number of operations performed in the hospital was 936, as against 604 in 1912, a very large increase which was ascribed to the effect of the Insurance Act, as was also a decrease of £142 in the income derived from subscriptions. It may also be noted that under the recently proved will of Mr. John Shiel, of Newcastle-on-Tyne, chairman of two colliery companies and director of a coal and coke company, a legacy of £1000 had been left to the Harrogate Convalescent Home connected with the Durham County Hospital. This bequest was revoked "in view of the provisions under the Insurance Bill and sanatoria provided thereby." It is to be hoped that no testators will allow the benevolent disposition of their property to be affected by any mistaken idea that the utility of hospitals has been put an end to or their needs diminished by the Act, which tends more and more to have an exactly contrary effect.

### THE MEDICAL RESEARCH COMMITTEE.

Regulations were issued on Wednesday last for the guidance of the Medical Research Committee, the constitution of which, under Lord Moulton of Bank as chairman, will be found in an article in THE LANCET of Sept. 27th, 1913, p. 970. In the same article the *personnel* is given of the Advisory Council, over which Lord Moulton also presides. The new Regulations provide that the committee should from time to time prepare schemes for research for submission to the Chairman of the National Health Insurance Joint Committee, who will take the advice thereon of the Advisory Council.

### LOCAL MEDICAL COMMITTEE FOR LONDON.

The Metropolitan Counties Branch of the British Medical Association has undertaken the duty of arranging for the election of the long-deferred statutory Local Medical Committee for the County of London. The scheme of election is briefly as follows. The committee will consist of 60 members with representation for medical men on the panel, for medical men not on the panel, for members of hospital staffs, for the public health and Poor-law medical services, and for medical women. The representation for medical men on and off the panel has been calculated from the estimated number of practitioners. The election will be carried out by postal vote. One panel representative will be elected for each of the 29 boroughs of London, while with the exception of Marylebone, which has a representative to itself, the boroughs will be arranged in groups for the election of 22 non-panel representatives. Nominations and votes to be valid must come from those actually residing in the particular borough or group of boroughs, but there will be no restriction as to the residence of candidates nominated. The six representatives of the medical staffs of hospitals will be elected by the members of the permanent staffs of hospitals resident in London; while one medical officer of health, one Poor-law medical officer, and one medical woman will be nominated and elected respectively by the metropolitan branch of the Society of Medical Officers of Health, the Poor-law Medical Officers' Association, and the Association of Registered Medical Women.

### LONDON MEDICAL BENEFIT SUBCOMMITTEE.

This committee recommends with regard to the allocation of funds arising in respect of insured persons not assigned to or accepted by medical men on the panel, that practitioners having more than 2000 patients on their lists shall not be credited with further fees in respect of the number of patients on their lists above 2000, but that the fees to be divided shall be apportioned among practitioners on the panel in proportion to the numbers not exceeding 2000 on their lists. Medical practitioners who have modified the conditions of their agreements so as formally to limit their lists

are to take no part in the distribution. The fund to be distributed arises from about 229,000 persons having made no choice of a medical attendant. The committee reports with regard to complaints against practitioners that during 1913 71 such complaints have been made, 28 being substantiated. In two cases only the committee decided to represent to the Commissioners that the medical man should not remain on the panel; in one of these he resigned and in the other his removal to an asylum supplied a solution to the question. Four complaints regarding the conduct of insured patients were made by practitioners, all of which were established, and the patients transferred to other members of the panel. The particulars of sanatorium benefit for London show that on Feb. 9th 2308 persons were receiving treatment—that is to say, 484 men and 247 women in sanatoriums, 773 men and 285 women at home, 287 men and 132 women at dispensaries, 77 men and 23 women as out-patients at hospitals. 1621 men and 687 women were thus being treated. The insured persons in London amounted to 1,590,877, of whom 1,512,518 belonged to societies and 78,359 were deposit contributors.

### A MALINGERER SENT TO PRISON.

The magistrates at West Ham recently sentenced a labourer named Ellingham to 21 days' imprisonment for obtaining sickness benefit by false pretences. He complained of rheumatism, and having a medical certificate to that effect received 15s. in sickness benefit until it was discovered that he was at work drawing wages to the amount of £1 18s. in one week.

### UNNOTIFIED REMOVALS AND DEATHS.

It is stated that at Cardiff 7000 medical cards addressed to insured persons have been returned through the dead letter office out of a total of 60,000 posted; that at Manchester 55,000 have been so returned out of 250,000; and at Salford 14,000 out of 90,000. These figures, if correct, represent persons who have changed their addresses or died without the Insurance Committee having any notification of the fact, either from the insured persons or from their representatives, or in the case of members of societies before Jan. 11th of this year from the societies. The persons so removed or dead, if their names are upon the list of panel practitioners, will presumably have to be paid for, at any rate for the quarter at the beginning of which their names so appear. Presumably also in many instances the Insurance Committee will be receiving no payments in respect of such persons. In due course those who have removed may apply for medical treatment, and so may come again within the cognisance of their original committee if they have only gone to a new address in the same locality. In other cases another committee will have to deal with them. If we are correct in thinking that in many instances committees will have to pay the medical man without receiving premiums in respect of the insured person paid for, the education of the insured person as to his rights and duties will become more important than ever.

### THE ISSUING OF LISTS TO PRACTITIONERS ON THE PANEL.

At Kilmarnock recently the Insurance Committee discussed a letter from the Panel Committee to the effect that the members of the panel would attend no patients who did not produce a medical card, as they had not received lists of their patients and had no means of identifying them. It was pointed out that responsibility might be thrown upon any medical man who broke his contract with the committee if he was proved to have done so, and the clerk stated that the staff at his disposal had been working till 10 P.M. in the attempt to get the lists and cards sent out. Rule 27 of the New Regulations deals with the preparation of such lists, but prescribes no time within which they shall be furnished to the practitioners concerned. Presumably the reasonableness of any period of delay in furnishing lists to practitioners would depend upon circumstances. How far even an unreasonable delay would be deemed to justify refusal on the part of a medical man to treat a patient applying to him is doubtful.

### SICKNESS BENEFIT CLAIMS COMMITTEE.

We are officially informed that the statement which appeared in the lay press on Feb. 25th that this committee, appointed by the Right Hon. C. F. G. Masterman under the National Insurance Act, 1911, was to begin its sittings on March 3rd is incorrect. The committee held its first meeting on Oct. 15th last and has since that date been actively at work. Up to the present time the committee has held 38 meetings and has examined 50 witnesses.

## Medical News.

UNIVERSITY OF CAMBRIDGE.—At a congregation to be held on June 9th in connexion with the opening of the new Physiological Laboratory by H.R.H. Prince Arthur of Connaught, the degree of Sc.D. *honoris causa* will be conferred upon Sir William Osler, Sir David Ferrier, Sir E. A. Schäfer, and Professor E. H. Starling.—Dr. Norman Moore, Honorary Fellow of St. Catharine's College, has been appointed Reader on Sir Robert Rede's foundation for the year 1914.—The following medical degrees have been conferred:—

*M.B., B.C.*—G. N. Stathers, Trinity; W. A. Anderson, Clare; and G. D. East, Emmanuel.
*M.B.*—E. S. Taylor, King's; and M. Avent, Caius.

ROYAL COLLEGE OF PHYSICIANS OF EDINBURGH: THE DR. JESSIE MACGREGOR PRIZE FOR MEDICAL SCIENCE.—Applications are now being invited from medical women who are either graduates of Edinburgh University or holders of the triple qualification diploma for the above prize, which is of the value of £75. The prize, which is offered triennially, will be awarded to the candidate who presents the best record of original work in the science of medicine, published or unpublished, during the last three years. Applications should reach the Convener of Trustees, Royal College of Physicians, Edinburgh, not later than May 1st, 1914. The award will be made in July.

DONATIONS AND BEQUESTS.—By the will of the late Mrs. Sarah Laura S. Geldart, of Huntingdon, a sum of £10,000 becomes available for distribution among one or more hospitals or charitable institutions for the cure of diseases in England.—The following bequests have been made under the will of the late Alderman Henry Harrison, of Blackburn: £1000 each to the Imperial Cancer Research Fund, the Cancer Investigation Department of the Middlesex Hospital, and the Cancer Hospital for cancer investigation, and £5000 to Manchester University for general purposes. For university scholarships the testator left £1000.—The Court of the Cutlers' Company has allocated the sum of £525 to 30 hospitals and charitable institutions.—Mrs. John Nixon and Miss Talbot Morgan have each sent to the Cardiff Hospital £500.—The Royal Hospital for Diseases of the Chest, City-road, has received an anonymous donation of £250 towards the equipment and research fund of the hospital.

KING'S COLLEGE HOSPITAL.—The annual court of governors of this hospital was held on Feb. 26th in the new buildings at Denmark Hill under the presidency of Lord Hambleden, chairman of the committee of management. The report, which was adopted on the motion of the chairman, stated that the number of patients attending the out-patient department was now thrice as great as that at the old buildings in Portugal-street, Lincoln's Inn, while the emergency surgical cases also were increasing in number, and showed the need for the hospital in its new situation.

PRESENTATION TO A MEDICAL MAN.—Dr. John Strachan was, on Feb. 27th, presented in the Masonic Hall, Dollar, with a cheque and an escritoire in recognition of the services which he has rendered to the district both as a medical man and a citizen. The occasion was the jubilee of Dr. Strachan's qualification as a medical man, and a large gathering of friends and patients assembled to do him honour. Mrs. Strachan was the recipient of a gold wristlet watch.

BRADFORD ROYAL INFIRMARY.—The annual meeting of supporters of this institution was held on Feb. 24th at the Bradford town-hall. The report stated that during the past year the board of management had taken an important step towards the realisation of the long-delayed project for building a new infirmary. Subject to confirmation by the Local Government Board, the city council had agreed to provide £100,000 to expedite the scheme, and the board had agreed in return to a representation of six members of the corporation upon the governing body and the possession by the city of the old infirmary and its site.

THE NOTTINGHAM MOTHERS' AND BABIES' WELCOME.—The fifth annual report of this institution, which is under the joint control of the corporation and a voluntary committee, shows that notwithstanding an increase of nearly £30 in the receipts the "Welcomes" were in debt to the bank for £61. The health committee of the city council made them a grant of £100, however, and with this they were enabled to start another year's work out of debt. The association maintains four "Welcomes," the average monthly number of attendances at which was 764, an increase of 46; has paid 4940 visits to homes; provided 6772 penny dinners for nursing and expectant mothers, and received and distributed clothes, flowers, food, and toys.

OXFORD OPHTHALMOLOGICAL CONGRESS.—The Oxford Ophthalmological Congress will assemble at Keble College on the evening of Wednesday, July 8th next, and the meeting will be held on the two following days. A discussion upon Workmen's Compensation in Injuries of the Eye will be opened by Mr. William Robinson. Those who desire to speak are invited to send in their names to the honorary secretary, Mr. Sydney Stephenson, 33, Welbeck-street, London, W.; while cases and specimens will be welcomed, and demonstrations and exhibits are invited. Among distinguished visitors who have already announced their intention of being present at the Congress are Dr. Darier, of Paris, Professor Deutschmann, of Hamburg, Dr. Casey A. Wood, of Chicago; and Dr. Wendell Reber, of Philadelphia.

MEDICAL SICKNESS AND ACCIDENT SOCIETY.—The usual monthly meeting of the executive committee of the above society was held at 429, Strand, W.C., on Feb. 20th, Dr. F. J. Allan being in the chair. The principal business before this meeting was the consideration of the annual and quinquennial reports. These were duly approved and passed, the results in both cases being of a highly satisfactory nature. The claims for the month of January show a marked decrease, and consequently a substantial margin in favour of the society. The new and additional proposals both show a large increase on the same month last year, and the extra publicity now being given in this and other journals has already resulted in an increase of applicants. The society has now been established for 30 years, having been started in March, 1884, and the sound basis on which it was founded and subsequently carried on has proved conclusively that one of the first and most important rules to establish is to restrict management expenses. The society is limited to 10 per cent. of the premium income, but this has never been reached, and, in fact, for the first 25 years it was only a fraction over 5 per cent. The balance of this allowance has been returned to the members and has materially assisted in paying the bonuses that have been declared at various times. The total sum paid away to members in the form of bonus since 1884 has now reached £19,000. This is in itself a convincing fact of the financial soundness of this society. Prospectus and information may be obtained from Mr. Bertram Sutton, secretary, 33, Chancery-lane, W.C.

LONDON LOCK HOSPITAL.—Special courses of instruction in venereal diseases for post-graduates and students will be held (three terms in the year) during April, May, and June, October, November, and December, and January, February, and March, at 91, Dean-street, Soho, W. Each course will consist of: clinics, given on Mondays, Tuesdays, Wednesdays, and Saturdays; 12 lectures; and practical demonstrations of the various methods of treatment.

QUEEN CHARLOTTE'S LYING-IN HOSPITAL.—The annual meeting of governors of this hospital was held at the hospital on Feb. 26th, Sir Samuel Scott, Bart., M.P., presiding. The annual report showed that during the past year 1701 patients had been admitted to the wards and 1854 had been attended and nursed in their own homes. Particular attention was drawn to the scheme for a new out-patient department and other improvements. The scheme had been submitted to King Edward's Hospital Fund and had been passed by the council of the Fund, who had made a grant of £1000 towards the expense. Other contributions to the special fund amounted to £2000, but there still remained about £7000 to be raised. In moving the adoption of the report the chairman strongly urged the necessity of proceeding with the enlargement as soon as possible, as the work of the hospital was being carried on at serious inconvenience and disadvantage to the patients and staff. He referred to the continued progress of the ladies' association, whose successful efforts were greatly appreciated by the committee of management. The annual meeting of the Ladies' Association was held subsequently, Lady Makins presiding. The receipts of the association for the past year had amounted to £573 13*s.*, as compared with £440 3*s.* 6*d.* in 1912. The association had been able to supply the whole of the ward and household linen for the hospital during the past year, to continue the subscription of £50 to the "Ladies' Association Bed," and to contribute a further sum of £400 to the special fund for the new out-patient department. In moving the adoption of the report Lady Makins appealed for more ladies to become subscribers to the association, so that greater help still might be given to the hospital.

# Parliamentary Intelligence.

## NOTES ON CURRENT TOPICS.

*Direct Representatives on the General Medical Council.*

Mr. ELLIS GRIFFITH, the Under Secretary of State for the Home Department, has introduced into the House of Commons a short Bill dealing with the election of Direct Representatives on the General Medical Council. It has been read a first time. The aim of the measure is that the period of service of all the Direct Representatives should expire on the same date, so that one election should suffice to fill up their seats.

*Antivivisection Bills.*

The text of two Bills, which are designed in varying degrees to check experiments on living animals, has been published. One, presented by Sir F. BANBURY, is to prohibit experiments on dogs. The other, promoted by Mr. J. CATHCART WASON, is to prohibit the vivisection of the higher animals. It applies to dogs, cats, horses, mules, asses, monkeys, apes, and baboons.

*Parliamentary Representative of the Insurance Commissioners.*

Mr. MASTERMAN since his rejection in Bethnal Green is no longer provided with an opportunity of replying in the House of Commons to questions on the administration of the National Insurance Act. That duty has been temporarily undertaken by Mr. WEDGWOOD BENN, one of the Junior Lords of the Treasury. Members, however, still formally address their questions on insurance matters to the Secretary of the Treasury, although Mr. MONTAGU has taken Mr. MASTERMAN'S place in this office. The reply is invariably

given by Mr. WEDGWOOD BENN. Without this explanation the reported proceedings of Parliament might give rise to some confusion as to the identity of the Ministers who are undertaking the Parliamentary representation of the National Insurance Commissioners.

*Medical Attendance on Insured Persons.*

A return which Mr. WORTHINGTON EVANS has asked for in regard to medical attendance under the National Insurance Act has been refused by the Government. What the honourable Member asked was particulars as to the number of insured persons who at the end of the first year after the National Insurance Act came into operation had chosen panel doctors, the number who had chosen an approved institution, the number who had been assigned by the several Insurance Committees to panel doctors or to institutions, the number who had been allowed to make their own arrangements for medical treatment with doctors not on the panel, and the number who had neither chosen doctors nor institutions nor had been assigned to doctors nor had made their own arrangements. Mr. WEDGWOOD BENN, in declining to grant the return, expresses the opinion that it would not be of a public utility sufficient to justify the time and labour necessary for its compilation and for ensuring its accuracy.

## HOUSE OF COMMONS.

### WEDNESDAY, FEB. 25TH.

*Deposit Contributors and Medical Benefit.*

Replying to Mr. MACCALLUM SCOTT, Mr. WEDGWOOD BENN said: A deposit contributor is only entitled to such benefits as can be provided from the amount standing to his credit in the deposit contributor's fund (including the moneys provided by Parliament). It follows, therefore, that when a deposit contributor has passed the age of 70, and further contributions are not payable in respect of him, he will not be entitled to medical benefit after the sum standing to his credit has been exhausted.

*Complaints by Gloucester Panel Practitioners.*

Mr. G. LOCKER-LAMPSON asked the Secretary to the Treasury whether complaints had been made by Gloucester panel doctors that certain Approved Societies had failed to supply forms for medical certificates and had ignored requests for such forms; whether insured persons' benefits were thereby in danger of disturbance, refusal, or delay; and what the Government proposed to do in the matter.—Mr. WEDGWOOD BENN replied: The matter referred to had not previously been brought to the notice of my right honourable friend, but he is in communication with the Insurance Committee and the Approved Societies concerned.

*Medical Certificates and Sick Pay.*

Mr. G. LOCKER-LAMPSON asked the President of the Local Government Board whether his attention had been called to the case of a member of an Approved Society who entered the Marylebone Poor-law infirmary on Jan. 12th last, remaining there three weeks, and who was unable to get sick pay from his Approved Society because the society would pay only on the production of the doctor's certificate and the infirmary doctor and authorities refused to give one; and whether any pressure could be brought to bear either upon the Approved Society or the infirmary officials so that this man might obtain his rights.—Mr. HERBERT SAMUEL answered: My attention had not been previously drawn to this case. It is the duty of the medical officer of the infirmary under the Local Government Board's regulations to give a certificate to the person on whom he is attending of the sickness of such person or the cause of his attendance on him, and I am calling the attention of the guardians to this requirement.

*Selection of Medical Men.*

Mr. WEDGWOOD BENN informed Mr. WORTHINGTON-EVANS that information was not available how many insured persons had not selected a medical man for the purpose of the National Insurance Acts at the end of the first insurance year, or in how many cases doctors had been assigned to insured persons by Insurance Committees before that date. The information could not be obtained without a special return from all Insurance Committees in Great Britain. If the honourable Member would put down a motion for a return the matter would be considered.

*Accommodation for Tuberculous Persons.*

Mr. G. LOCKER-LAMPSON asked the Secretary to the Treasury whether his attention had been called to the conference of Poor-law authorities on Feb. 18th last, where it was stated that such authorities had spare accommodation for tuberculous persons; and whether, in view of the fact that there was still a shortage of accommodation for insured tuberculous persons which was causing delay in their treatment, he would do his best to effect a temporary arrangement similar to that in connexion with the Metropolitan Asylums Board, so that such spare accommodation might be utilised for them.—Mr. WEDGWOOD BENN said in reply: It is not open to Insurance Committees to make arrangements for the treatment of insured persons by Poor-law authorities. The case of the Metropolitan Asylums Board is governed, as the honourable Member knows, by special provisions in the 1913 Act.

*Reorganisation of London University.*

Sir PHILIP MAGNUS asked the Prime Minister whether the Government intended to introduce this session a Bill for the reorganisation of the University of London, in general accordance with the recommendations of the Royal Commission on University Education in London, and, if so, whether that Bill would be presented as a separate measure, or as part of the measure for the development of a national system of education, to which reference was made in the gracious speech from the Throne.—Mr. ASQUITH answered: Pending the report of the Departmental Committee on the University of London, I am not in a position to announce the intentions of the Government. It will probably be convenient and desirable to deal with this question in a separate measure.

*Declarations under the Vaccination Act.*

Mr. W. HARVEY asked the Home Secretary whether his attention had been called to the fact that in some parts of the country conscientious objectors under the Vaccination Act, 1907, experienced great difficulty in finding a justice of the peace who was willing to witness their declaration; and whether he was prepared either to take steps to compel all magistrates to sign exemption orders or else provide additional facilities for those who desired to avail themselves of the exemption afforded by the Act.—Mr. MCKENNA replied: One or two complaints of this sort have been received, but I have no reason to think that the difficulty is of frequent occurrence. If my honourable friend will let me know of any particular cases where magistrates have refused to take the declarations I will make inquiry, but he should understand that I have no authority to compel them to do so, and I fear I could not undertake to propose legislation on the subject at the present time.

*Medical Men and the National Insurance Act.*

During the course of the debate on the motion in favour of an inquiry into the working of the National Insurance Act, Mr. LLOYD GEORGE expressed his opposition to the establishment of a voluntary system in place of the present compulsory system. In the course of his speech the right honourable gentleman said that one honourable Member complained that in 18 months all the sanatoria had not been erected. Another honourable gentleman said that sites were actually being bought. How could sanatoria be built without sites? A sum of £1,600,000 had been set aside for the purpose.

An honourable Member: Has it been spent?

Mr. LLOYD GEORGE replied that it had not been spent because all these places could not be built in 18 months. The £1,600,000 was an offer made by the State to meet local expenditure. It was an offer not of £1 for £1. 60 per cent. of the expenditure was offered as a grant from the Exchequer. Wherever the local authority had come forward—and he was glad to say that these authorities had come forward in his part of the country—and offered to build, the State had been ready to provide 60 per cent. of the total expenditure. But it was impossible to purchase sites and build sanatoria in 18 months. Speaking of the difficulties which had been experienced in bringing the Act into operation the right honourable gentleman said that there was some difficulty with the doctors at first. The doctors came in for the moment somewhat sulkily in some parts of the country, but the testimony which he had received from every part now was that the doctors were working, not merely freely, but heartily and well. There might be one or two cases where that was not so. From some societies in different parts of the country he had complaints, but in the main the doctors were working with a will. To rush to conclusions after the first year of administration, when the machinery had not been properly organised and systematised, would be folly on the part of the Government, but to come to the conclusion that they should make alterations which would be permanent, on the purely temporary basis of the experience which they had had, was a policy which no Government could adopt without possibly incurring expenditure of a very extravagant character.

### THURSDAY, FEB. 26TH.

*No State Medical Service.*

Mr. G. LOCKER-LAMPSON asked the Secretary to the Treasury whether a Government committee was at present considering the subject of a State Medical Service, and was actually preparing plans for such a scheme.—Mr. WEDGWOOD BENN replied: No, sir.

*Domiciliary Treatment of Tuberculous Persons.*

Mr. G. LOCKER-LAMPSON asked the Secretary to the Treasury whether his attention had now been drawn to the tatement in the report of a subcommittee of the West Ham

Insurance Committee that out of 95 tuberculous persons receiving domiciliary treatment in their area at the end of 1913, no less than 37 were sleeping in the same rooms as other persons; and what the Government proposed to do in the matter.—Mr. WEDGWOOD BENN replied: It is the duty of the committee to arrange for the provision of treatment for tuberculous insured persons recommended for sanatorium benefit, and for their receiving all necessary instructions and advice as to the conduct and habits conducive to recovery, but they have no means of enforcing those instructions in such cases as those referred to in the question except by making their observance a condition of the receipt of treatment, which would in many cases deprive the insured person for causes beyond his control of all the benefit of treatment.

*The Drug Fund in Manchester.*

Mr. G. LOCKER-LAMPSON asked the Prime Minister whether, in view of the anxiety felt by panel chemists in Manchester owing to the deficiency in the drug fund in that district under the National Insurance Act and the non-payment of a large portion of their accounts for 1913, he would give a pledge on behalf of the Government that they would all be paid in full.—Mr. ASQUITH answered: No question arises for such an undertaking as that asked for in the question. The amount of the remuneration payable to the Manchester panel chemists is governed by the contracts into which they have entered with the Manchester Insurance Committee, and they will receive the whole of the sums due to them under these contracts.

Mr. LOCKER-LAMPSON: Is it not a fact that these chemists are not in the least responsible for the nature of the prescriptions ordered by the doctors?—Mr. ASQUITH: I would ask the honourable Member to put that question down on the paper.

Sir W. P. BYLES: Is the honourable gentleman (Mr. Wedgwood Benn) aware that the chemists in the Manchester and Salford district numbering 150 are really £1600—[Mr. LOCKER-LAMPSON: £16,000]—deficient of money which they earned during last year? What I want to know is whether they have to lose that money?—Mr. WEDGWOOD BENN: My right honourable friend is aware that a joint committee of doctors and chemists are going through the accounts.

*The Vaccination Laws.*

Mr. BRIDGEMAN asked the President of the Local Government Board whether he would state how many resolutions he had received from Poor-law unions stating that the present system was rendering inoperative the vaccination laws and asking for an inquiry into the working of the conscience clause; and whether he proposed to take any steps to meet their wishes.—Mr. HERBERT SAMUEL replied: The answer to the first part of the question is 118. In answer to the second part of the question I would refer the honourable Member to my reply to a similar question on a previous occasion.

*Criminal Lunatics.*

Mr. TOUCHE asked the Home Secretary whether persons confined in criminal lunatic asylums were allowed to see legal advisers and private doctors.—Mr. MCKENNA wrote in reply: If sufficient occasion arises for a visit from a legal adviser the visit would be allowed. The patients are under the care of the highly qualified medical staff of the asylum, and a consultation with a private medical practitioner would not be necessary save in wholly exceptional circumstances. The right honourable gentleman (in reply to further questions) proceeded: Letters from criminal lunatics are sometimes quite unfit to send out of the asylum, and have to be stopped or partially erased. It must be a matter for the discretion of medical officers having charge of lunatics to decide when this has to be done. No regulations could be laid down defining the circumstances which render such a course necessary, but the regulations require all letters so stopped to be laid before the council of supervision of the asylum at their next meeting.

MONDAY, MARCH 2ND.

*The Prevention of Shuttle-kissing.*

Replying to Major STANLEY, Mr. MCKENNA (the Home Secretary) said: The inspectors of factories have for some time been pressing manufacturers to adopt appliances for preventing the practice of shuttle-kissing, but as no such device had been found which was generally accepted as satisfactory, conferences had been held between the inspectors and representatives of the employers and workers. At the last conference in October a small committee representing the three parties was appointed to make practical trials in cotton mills of various devices. These trials are still proceeding, and I am not in a position to make any definite statement at present, but I have good hope of their leading to a satisfactory result.

*The Solvency of Approved Societies.*

Mr. BONAR LAW asked the Chancellor of the Exchequer whether or not it was the case that on the evidence now available the chief actuary had reason to consider that a large number of Approved Societies would on valuation be unable to pay the minimum benefits under the Insurance Act?—Mr. LLOYD GEORGE replied: In view of the short experience of Approved Societies in meeting claims for benefit, disablement benefit in particular being not yet operative, I do not propose at the present moment to direct any actuarial examination to be made such as would be requisite for arriving at a reliable professional opinion. I may say, however, that the evidence at present at my disposal indicates that the experience in respect of men's societies generally has been well within the actuarial expectations. The experience in respect of women, however, indicates some excessive sickness benefit expenditure, and this excess arises particularly from the claims in respect of married women. There are also considerations affecting some societies having an undue proportion of members in specially unhealthy trades. A strong Departmental Committee is now examining the whole subject, and I hope that its report and evidence will be helpful in the consideration of how best to meet the particular difficulties.

TUESDAY, MARCH 3RD.

*Nurses' Registration Bill.*

Dr. CHAPPLE, in moving for leave to introduce a Bill "to regulate the qualifications of trained nurses and to provide for their registration," said that the Bill proposed without compulsion and without cost to the State to set up a nursing council. That council would be charged as part of its duty to prescribe a curriculum and also a minimum standard of training for nurses. It also provided for certificates being granted to those nurses who passed the examination prescribed by the Council. It was also proposed that a register of those nurses who had passed the prescribed examination and secured the certificate should be kept for reference. It did not in the least interfere with nursing as it was carried out at present. Any woman would be at liberty to practise nursing just as she practised it now. The only thing that the untrained woman would not be able to do was to claim that she had been trained at a hospital and was a qualified nurse. The matter would be on all fours with the registration of medical practitioners. The present state of the nursing profession was quite unsatisfactory. Out of 200 institutions recently circularised 99 declared that they were very short of nurses. Under the present system the sick were often imposed upon, but this Bill would put an end to the claims of untrained women. The motive of the opposition which had been shown to this Bill in the past was a money one. The head and front of the opposition came from the London Hospital. That was the only great hospital in Great Britain which opposed the registration of nurses. It was the only hospital which exploited nurses for its own financial advantage. It gave certificates to nurses at the end of two years, whereas it was recognised by other hospitals that three years was a necessary curriculum.

Mr. BOOTH said that the references to the London Hospital alone would entitle honourable Members by way of protest to vote against the motion. It was doing a great work amongst the poor in the East End. He also pointed out that the standard for registration was not agreed.

By 311 votes to 82 leave was granted to bring in the Bill.

Dr. CHAPPLE formally introduced the Bill, which was read a first time.

WEDNESDAY, MARCH 4TH.

*Manchester Panel Chemists and Prescriptions.*

Mr. GODFREY LOCKER-LAMPSON asked the Secretary to the Treasury whether the Manchester panel chemists had any control over the nature of the prescriptions ordered by the doctors; and, if not, why they should not be entitled to full payment for the prescriptions they made up.—Mr. WEDGWOOD BENN replied: The answer to the first part of the question is in the affirmative. Under the Regulations it is open to the chemists on the panel in any area to obtain a scrutiny of the prescriptions dispensed by them, with a view to surcharging the individual doctors responsible with the cost of those shown to be excessive or extravagant.

## BOOKS, ETC., RECEIVED.

ADLARD AND SON, London.

Industries for the Feeble-Minded and Imbecile. A Handbook for Teachers. By A. Bickmore. Price 2s. net.

CAMBRIDGE UNIVERSITY PRESS, London and Cambridge.

The Interregnum. Twelve Essays on Religious Doubt. By R. A. P. Hill, B.A., M.D. Price 4s. 6d. net.

FISCHER, GUSTAV, Jena.

Lehrbuch der Orthopædie. Bearbeitet von Dr. von Aberle, Dr. Bade, Privat-dozent Dr. von Baeyer, Prof. Dr. Biesalski, Sanitätsrat Dr. Gaugele, Prof. Dr. Lange, Prof. Dr. Ludloff, Dr. Preiser, Prof. Dr. J. Reidinger, Dr. L. Rosenfeld, Prof. Dr. Spitzy. Herausgegeben von Dr. Fritz Lange. Mit 586 zum Teil mehrfarbigen Abbildungen. Price M. 18, geb. M. 19

Handbuch der Gesamten Therapie. In sieben Bänden. Herausgegeben von Prof. Dr. F. Penzoldt, in Erlangen, und Prof. Dr. R. Stintzing, in Jena. Fünfte Auflage. Lieferung 3. Price M. 3.50. Lieferung 4 (Bd. I., Seite 401–560). Price M. 3.50. Lieferung 5 (Bd. VI., Bogen 1–10). Price M. 3.50. Lieferung 6 (Bd. III., Seite 1–160). Price M. 3.50. Lieferung 7 (Bd. I., Seite 561–720). Price M. 3.50. Leiferung 8 (Bd. I., Seite 721–880). Price M. 3.50. Lieferung 9 (Bd. I., Seite 881–986 Titel und Inhaltsverzeichnis, Bd. II., Seite 1–48). Price M. 3.50. Lieferung 10 (Bd. III., Seite 161–320). Price M. 3.50.

Handbuch der Vergleichenden Physiologie. Herausgegeben von Hans Winterstein in Rostock. Neununddreissigste Lieferung. Band I. Physiologie der Körpersäfte, Physiologie der Atmung. Zweite Hälfte Seite 641–756. Band IV. Physiologie der Reizaufnahme. Reizleitung und Reizbeantwortung. Seite 977 Schluss Titel und Inhaltsverzeichnis. Price M. 5. Vierzigste Lieferung. Band III. Physiologie des Energiewechsels. Physiologie des Formwechsels. Zweite Hälfte. Seite 787–946. Price M. 5.

Erfahrungen über die Röntgenuntersuchung der Lungen unter besonderer Berücksichtigung anatomischer Controllen. Von Dr. Herbert Assmann (Leipzig), Mit einem Vorwort von A. v. Strümpell. Price M. 18.

Leitfaden für des embryologische Praktikum und Grundriss der Entwicklungslehre des Menschen und der Wirbeltiere. Von Prof. Dr. Albert Oppel, in Halle a S. Price M. 9.

Ueber den extrakardialen Kreislauf des Blutes vom Standpunkt der Physiologie, Pathologie und Therapie. Von Karl Hasebrook in Hamburg.

Die Morphologie der Missbildungen des Menschen und der Tiere. Ein Hand- und Lehrbuch für Morphologen, Physiologen, Praktische Aerzte und Studierende. Herausgebeben von Professor Dr. Ernst Schwalbe an der Universität Rostock. III. Teil. Die Einzelmissbildungen. XI. Lieferung 1, Abteilung, 5 und 6 Kapitel. Die Missbildungen des Kopfes. II. Die Cyclopie. Von Prof. Ernst Schwalbe und Dr. Hermann Josephy. III. Otocephalie und Triocephalie. Missbildungen des Halses. Von Dr. Hermann Josephy. Price M. 5.

Jenaer medizin-historische Beiträge. Herausgegeben von Prof. Dr. Theod. Meyer-Steineg. Heft 5 Zur Geschichte des Ammenwesens im klassischen Altertum. Von Dr. med. Wilhelm Braams. Price M. 1.

Vorlesungen über Allgemeine Epidemiologie. Von Prof. Dr. Paul Th. Müller an der Universität Graz. Price M. 5.50.

Ueber die Doehle-Heller'sche Aortitis (Aortitis luetica). Eine pathologisch-anatomische Studie. Von Dr. Georg B. Gruber, Strassburg, i. Els. Price M.12.

Oesophagus-Chirurgie. Eine klinische und experimentelle Studie über chirurgisches Vorgehen bei thorakalen und abdominellen Speiseröhreng-eschwülsten. Von Privat-dozent Dr. Eduard Rehn (Jena). Price M.7.

FROWDE, HENRY, AND HODDER AND STOUGHTON, London.

A Handbook for the Post-mortem Room (Oxford Medical Publications). By Alexander G. Gibson, D.M. Oxon, F.R.C.P. Lond. Price 3s. 6d. net.

COXA VERA, its Pathology and Treatment. By R. C. Elmslie, M.S., F.R.C.S. Price 2s. net.

JOHNS HOPKINS PRESS, THE, Baltimore.

The Statistical Experience Data of the Johns Hopkins Hospital, 1892–1911. By Frederick L. Hoffman, LL.D., F.S.S., Statistician to the Prudential Insurance Company of America. (The Johns Hopkins Hospital Reports Monographs, New Series, No. IV.)

LABORATOIRE D'HYPODERMIE, 15, Avenue Perrichont, Paris.

Manuel Pratique de la Médication Hypodermique. Par MM. Les Docteurs G. Bosc, Fernet, H. Gillet, Maute, Saissl, Tournade, Gallot (Dentiste), et par L. Lecoq (Pharmacien de 1re classe). Second edition.

LIBRAIRIE VISCONTI, Nice. MALOINE, A., Paris. LIBRAIRIE LAMERTIN, Brussels.

Le Pain Blanc, ses Dangers et son Remède. Le Pain Naturel, par le Dr. Monteuuis. With a preface by Mr. le Pr. Letulle, Membre de l'Académie de Médecine. Price Fr. 2.50.

LONGMANS, GREEN, AND CO., London.

Rays of Positive Electricity and their Application to Chemical Analysis. By Sir J. J. Thomson, O.M., F.R.S. Price 5s. net.

Incandescent Electric Lamps and Their Application. By Daniel H. Ogley, late Research Scholar and Chief Assistant Lecturer in Electrical Engineering at the Royal Technical Institute, Salford. With illustrations. Price 2s. 6d. net.

Photo-Electricity. The Liberation of Electrons by Light, with chapters on Fluorescence and Phosphorescence and Photo-Chemical Actions and Photography. By H. Stanley Allen, M.A., D.Sc., Senior Lecturer in Physics at King's College. Price 7s. 6d. net.

The Nature of Enzyme Action. By W. M. Bayliss, D.Sc., F.R.S., Professor of General Physiology at University College, London. Third edition, revised and enlarged. Price 5s. net.

The Chemistry of the Radio-Elements. Part II. (The Radio-Elements and the Periodic Law). By Frederick Soddy, F.R.S., Lecturer in Physical Chemistry and Radiography in the University of Glasgow. Price 2s. net.

The Essentials of Chemical Physiology for the Use of Students. By W. D. Halliburton, M.D., LL.D., F.R.S. Eighth edition, with coloured plate. Price 5s. net.

Ventilation and Humidity in Textile Mills and Factories. By Cecil H. Lander, M.Sc., A.M.I.C.E., A.M.I.M.E. Price 4s. 6d. net.

MILLS AND BOON, London.

How to Treat by Suggestion With and Without Hypnosis. A Note-book for Practitioners. By Edwin L. Ash, M.D. Lond. Price 1s. net.

NATIONAL ASSOCIATION FOR THE PREVENTION OF INFANT MORTALITY AND FOR THE WELFARE OF INFANCY, 4, Tavistock-square, London, W.C.

English-speaking Conference on Infant Mortality. Report of the Proceedings of the English-speaking Conference on Infant Mortality, held at Caxton Hall, Westminster, on August 4th and 5th, 1913. Price 3s. net.

SAFAR, JOSEF, Wien und Leipzig.

Kurzes Lehrbuch der Militärhygiene. Von Dr. med. et phil Jaroslav Hladik. Mit 135 Abbildungen und 55 Tabellen im Texte Price K.14.40 (M.12), geb. K.16.20 (M.13.50).

SAUNDERS (W. B.) COMPANY, Philadelphia and London.

An Introduction to the History of Medicine. With Medical Chronology, Bibliographic Data, and Test Questions. By Fielding H. Garrison, A.B., M.D., Principal Assistant Librarian, Surgeon General's Office, Washington, D.C. Price 25s. net.

The Surgical Clinics of John B. Murphy. M.D., at Mercy Hospital, Chicago. December, 1913. Volume II., Number 6. Price per year of six numbers, paper, 35s. net; cloth, 50s. net.

Treatise on Diseases of the Skin. For the Use of Advanced Students and Practitioners. By Henry W. Stelwagon, M.D., Ph.D. Seventh edition, thoroughly revised. Price 25s. net.

SCIENTIFIC PRESS, THE, LIMITED, London.

Burdett's Hospitals and Charities. 1914. By Sir Henry Burdett K.C.B., K.C.V.O. Twenty-fifth year. Price 10s. 6d. net.

The Midwife's Pocket Encyclopædia and Diary. Price 6d. net.

Asepsis and How to Secure it. By H. W. Carson, F.R.C.S. Eng. Senior Surgeon to the Prince of Wales's General Hospital, Tottenham. Price 1s. net.

Surgical and Medical Dressings. By M. R. Hosking, Sister-in-charge of the London Hospital Preliminary Training Home. Price 1s. net.

Wounds and their Management. By J. K. Watson, M.D. Edin. Price 1s. net.

The Nursing Mirror Pocket Encyclopædia and Diary, 1914. Enlarged and revised. Price 6d. net.

SIMPKIN, MARSHALL, AND CO., LIMITED, London.

Noted Murder Mysteries. By Philip Curtin. Price 7s. 6d. net.

Experience Teaches: Advice to Youths and Young Women. By Ivon Trinda. Price, cloth, 2s. 6d.; leather, 4s.

# Appointments.

*Successful applicants for vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward to* THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week, such information for gratuitous publication.*

BRAUND. HENRY, M.R.C.S., L.R.C.P. Lond., has been appointed Clinical Assistant to All Saints' Hospital for Genito-Urinary Diseases, Vauxhall Bridge-road, S.W.

CANDLER, ARTHUR LAWRENCE, M.B., B.S. Lond., F.R.C.S. Eng., L.R.C.P. Lond., has been appointed Honorary Anæsthetist to the Devon and Exeter Dental Hospital.

FERGUSON, R., M.D. Aberd., has been appointed Certifying Surgeon under the Factory and Workshop Acts for the Ongar District of the county of Essex.

FREW, ROBERT S., M.D. Edin., has been appointed Assistant Physician for Diseases of Children at King's College Hospital.

GIBSON, H. E., M.B., B.Ch. Oxon., has been appointed Clinical Assistant to All Saints' Hospital for Genito-Urinary Diseases, Vauxhall Bridge-road, S.W.

GREENE, ARTHUR, M.D. Dub., F.R.C.S. Irel., has been appointed full Honorary Surgeon to the Norfolk and Norwich Eye Infirmary.

JENKINS, E. L., M.B., B.S. Durh., has been appointed Certifying Surgeon under the Factory and Workshop Acts for the Lynton District of the county of Devon.

KEITH, SKENE, M.B., B.S., has been appointed House Surgeon to All Saints' Hospital for Genito-Urinary Diseases, Vauxhall Bridge-road, S.W.

KNIGHT, CHARLES VOUGHTON, M.D. Lond., M.R.C.S., L.R.C.P. Lond., has been elected a Surgeon on the Honorary Staff of the Gloucestershire Royal Infirmary and Eye Institution.

O'CONNOR, EDWARD, M.B., B.Ch. Oxon., has been appointed Clinical Assistant to All Saints' Hospital for Genito-Urinary Diseases, Vauxhall Bridge-road, S.W.

O'REILLY, T. P., L.R.C.P. Irel., has been appointed Medical Officer for Tuberculosis in County Cavan, Ireland.

PITTS, ARTHUR T., M.R.C.S., L.R.C.P. Lond., L.D.S., has been appointed Dental Surgeon to the Hospital for Sick Children, Great Ormond-street.

RODGER, M. M., M.D., Ch.B. Glasg., has been appointed Assistant Medical Officer at the Cardiff Mental Hospital.

SAMUELS, ISIDORE, L.D.S. Eng., has been appointed Dental Surgeon to the Devon and Exeter Hospital.

STOKES, JOHN, M.D. Durh., has been appointed Honorary Physician to the Sheffield Children's Hospital.

WARDROP, J. G., M.R.C.S., L.R.C.P. Lond., has been appointed House Physician at University College Hospital.

ZOBEL, S., M.D. Lond., has been appointed Clinical Assistant to All Saints' Hospital for Genito-Urinary Diseases, Vauxhall Bridge-road, S.W.

# Vacancies.

*For further information regarding each vacancy reference should be made to the advertisement (see Index).*

AYR DISTRICT ASYLUM.—Junior Assistant Physician. Salary £200 per annum, with board, lodging, and laundry.

BARROW-IN-FURNESS, NORTH LONSDALE HOSPITAL.—House Surgeon. Salary £100 per annum, with residence, board, and laundry.

BATH, ROYAL UNITED HOSPITAL.—House Surgeon. Salary £100 per annum, with board, lodging, and washing.

BEDFORD COUNTY HOSPITAL.—Assistant House Surgeon. Salary £80 per annum, with board, lodging, and laundry.

BELGRAVE HOSPITAL FOR CHILDREN, Clapham-road, S.W.—House Physician for six months. Salary at rate of £75 per annum, with board, residence, &c.

BIRMINGHAM AND MIDLAND EYE HOSPITAL, Church-street.—Junior House Surgeon. Salary £100 per annum, with residence, board, &c.

BIRMINGHAM AND MIDLAND HOSPITAL FOR NERVOUS DISEASES, Bath-row, Birmingham.—Physician to Out-patients.

BIRMINGHAM, CITY OF.—Female Assistant Medical Officer of Health for Infant Consultation work, &c. Salary £300 per annum.

BIRMINGHAM UNION, DUDLEY-ROAD INFIRMARY.—Resident Assistant Medical Officer. Salary £140 per annum, with apartments, rations, laundry, and attendance.

BOLTON, COUNTY BOROUGH OF.—Assistant Medical Officer of Health and School Medical Officer. Salary £250 per annum.

BRENTFORD UNION INFIRMARY, WORKHOUSE, AND SCHOOLS, Isleworth, W.—Second Assistant Medical Superintendent, unmarried. Salary £150 per annum.

BRIDGWATER HOSPITAL.—House Surgeon, unmarried. Salary at rate of £125 per annum, with board, lodging, and washing.

BRIGHTON, ROYAL ALEXANDRA HOSPITAL FOR SICK CHILDREN, Dyke-road.—House Surgeon for six months. Salary at rate of £100 per annum, with board, lodging, and washing.

BRIGHTON, ROYAL SUSSEX COUNTY HOSPITAL.—House Surgeon, unmarried. Salary £120 per annum, with board, residence, and washing. Also Assistant House Surgeon, unmarried. Salary £80 per annum, with apartments, board, and laundry.

BRISTOL ROYAL INFIRMARY.—Two House Surgeons, House Physician, and Throat, Nose, and Ear House Surgeon, all for six months. Salaries at rate of £100 per annum, with board, apartments, and laundry.

BURNLEY, VICTORIA HOSPITAL.—Second House Surgeon for six months. Salary at rate of £80 per annum, with residence, board, and washing.

CANCER HOSPITAL (FREE), Fulham-road, London, S.W.—House Surgeon for six months. Salary £70 per annum.

CANTERBURY, KENT COUNTY ASYLUM, Chartham.—Locum Tenens Assistant Medical Officer for four months. Salary £5 per week, with board, lodging, and washing.

CARDIFF, KING EDWARD VII. WELSH NATIONAL MEMORIAL ASSOCIATION.—Assistant Tuberculosis Physician. Salary £300 per annum.

CARDIFF UNION.—Whole-time Medical Officer for Ely Workhouse, Headquarters and Canton Children's Homes, and Canton District, and Public Vaccinator. Salary for combined appointments about £340 per annum.

CATERHAM ASYLUM, Caterham, Surrey.—Senior Assistant Medical Officer. Salary £300 per annum, with board, lodging, and washing.

CENTRAL LONDON OPHTHALMIC HOSPITAL, Judd-street, W.C.—Assistant Surgeon.

CHESTERFIELD AND NORTH DERBYSHIRE HOSPITAL.—House Physician. Salary £80 per annum, with board, apartments, and laundry.

CITY OF WESTMINSTER UNION INFIRMARY, Fulham-road, S.W.—Second Assistant Medical Officer. Salary £130 per annum, with board, residence, and washing

DERBY COUNTY ASYLUM, Mickleover, Derby.—Junior Assistant Medical Officer. Salary £200 per annum, with board, lodging, and washing.

DEWSBURY AND DISTRICT GENERAL INFIRMARY.—House Surgeon. Salary £120 per annum, with board, residence, and laundry.

DONCASTER, ROYAL INFIRMARY AND DISPENSARY.—Assistant House Surgeon. Salary £100 per annum, with board, apartments, and washing.

DORCHESTER, DORSET COUNTY HOSPITAL.—House Surgeon, unmarried. Salary £125 per annum, with residence, board, and laundry.

DURBAN MUNICIPALITY.—Assistant Medical Officer of Health. Salary £600 per annum.

EAST LONDON HOSPITAL FOR CHILDREN AND DISPENSARY FOR WOMEN, Shadwell, E.—Medical Officer to Casualty Department for six months. Salary at rate of £100 per annum, with luncheon and tea. Also House Surgeon for six months. Salary at rate of £75 per annum, with board, residence, laundry, &c.

ECCLES AND PATRICROFT HOSPITAL.—House Surgeon. Salary £70 per annum, with board, washing, and lodging.

EPSOM, LONDON COUNTY ASYLUM, Horton, Surrey.—Junior Assistant (Sixth) Medical Officer. Salary £200 per annum, with board, apartments, and washing.

ESSEX EDUCATION COMMITTEE.—Two Medical Inspectors. Salary £300 per annum.

EXETER, ROYAL DEVON AND EXETER HOSPITAL.—Assistant House Surgeon for six months. Salary at rate of 100 guineas per annum, with board, apartments, and washing.

FARRINGDON GENERAL DISPENSARY AND LYING-IN CHARITY, 17, Bartlett's-buildings, Holborn Circus, E.C.—Resident Medical Officer. Salary £100 per annum, with rooms, attendance, fire, and lighting.

FOLKESTONE, ROYAL VICTORIA HOSPITAL.—Resident House Surgeon. Salary £100 per annum, with apartments, board, and laundry.

GLASGOW, STOBHILL GENERAL HOSPITAL, Springburn.—Medical Superintendent. Salary £500 per annum, with house, coal, and light. Also Junior Resident Medical Officer. Salary £150 per annum, with board and apartments.

GLOUCESTERSHIRE ROYAL INFIRMARY AND EYE INSTITUTION.—Assistant Surgeon.

GREAT YARMOUTH HOSPITAL.—House Surgeon, unmarried. Salary £140 per annum, with board, lodging, and washing.

GREENOCK INFIRMARY.—House Surgeon. Salary £60 per annum, with board and residence.

HALIFAX ROYAL INFIRMARY.—Second House Surgeon and Third House Surgeon, unmarried. Salary £100 and £90 per annum respectively, with residence, board, and washing.

HEMEL HEMPSTEAD, WEST HERTS HOSPITAL.—Resident Medical Officer. Salary £120 per annum, with rooms, board, and washing.

HOLBORN UNION INFIRMARY, Archway-road, Upper Holloway, N.—Second Assistant Medical Officer. Salary £140 per annum, with board, apartments, and washing.

KING EDWARD VII.'S SANATORIUM, Midhurst, Sussex.—First Assistant Medical Officer. Salary £200 per annum, with board, lodging, and attendance.

KING'S COLLEGE HOSPITAL, Denmark Hill, S.E.—Assistant Anæsthetist.

LEEDS PUBLIC DISPENSARY.—Junior Resident Medical Officer. Salary £100 per annum, with board, residence, and laundry.

LEEDS UNIVERSITY.—Demonstrator in Bacteriology. Salary £250 per annum. Also Junior Demonstrator in Pathology. Salary £150 per annum.

LEICESTER ROYAL INFIRMARY.—Assistant House Surgeon and Assistant House Physician for six months. Salary at rate of £80 per annum, with board, apartments, and washing.

LEICESTERSHIRE EDUCATION COMMITTEE.—Assistant School Medical Officer. Salary £250 per annum.

LIVERPOOL INFIRMARY FOR CHILDREN.—Two Resident House Physicians and Resident House Surgeon for six months. Salary £30 in each case, with board and lodging.

LIVERPOOL, TOWNSHIP OF TOXTETH PARK WORKHOUSE AND INFIRMARY.—Assistant Resident Medical Officer. Salary £150 per annum, with board, washing, and apartments.

LONDON LOCK HOSPITAL.—Assistant House Surgeon. Salary £80 per annum, with board, lodging, and washing.

MAIDSTONE, KENT COUNTY ASYLUM.—Fourth Assistant Medical Officer, unmarried. Salary £200 per annum, with quarters, attendance, washing, &c.

MANCHESTER, ANCOATS HOSPITAL, Mill-street.—Three Anæsthetists, two mornings per week. Salary £20 per annum each.

MANCHESTER CHILDREN'S HOSPITAL, Pendlebury, near Manchester.—Resident Medical Officer, unmarried. Salary at rate of £100 per annum.

MANCHESTER CHILDREN'S HOSPITAL (OUT-PATIENTS' DEPARTMENT), Gartside-street, Manchester.—Assistant Medical Officer for six months. Salary £100 per annum.

MANCHESTER NORTHERN HOSPITAL FOR WOMEN AND CHILDREN, Park-place, Cheetham Hill-road.—Junior House Surgeon. Salary £100 per annum, with apartments and board.

MANCHESTER ROYAL INFIRMARY, CONVALESCENT HOSPITAL, Cheadle.—Assistant Medical Officer, unmarried, for six months. Salary at rate of £80 per annum, with board and residence.

MARGATE, ROYAL SEA-BATHING HOSPITAL FOR SURGICAL TUBERCULOSIS.—Resident Surgeon. Salary at rate of £150 per annum for first six months, and £200 per annum for second six months, with board, residence, and laundry.

METROPOLITAN ASYLUMS BOARD INFECTIOUS HOSPITALS SERVICE.—Junior Assistant Medical Officers, unmarried. Salary £180 per annum, with board, lodging, and washing.

METROPOLITAN HOSPITAL, Kingsland-road, N.E.—Assistant Dental Surgeon.

MILLER GENERAL HOSPITAL FOR SOUTH-EAST LONDON, Greenwich-road, S.E.—Junior House Surgeon for six months. Salary at rate of £85 per annum, with board, residence, and laundry.

NEWARK-UPON-TRENT HOSPITAL.—Resident Medical Officer, unmarried. Salary £100 per annum, with board, lodging, and laundry.

NEWPORT (MON.) ELEMENTARY EDUCATION COMMITTEE.—Assistant School Medical Officer and Medical Inspector of Schools. Salary £250 per annum.

NEWPORT (MON.), ROYAL GWENT HOSPITAL.—Resident Medical Officer. Salary at rate of £100 per annum, with board, residence, and laundry.

NORWICH CITY ASYLUM, Hellesdon, near Norwich.—Assistant Medical Officer, unmarried. Salary £200 per annum, with board, apartments, attendance, and laundry.

NOTTINGHAM, CITY OF.—Resident Assistant Medical Officer, unmarried, for Bagthorpe Institution and Infirmary for six months. Salary at rate of £165 per annum, with apartments, &c.

NOTTS EDUCATION COMMITTEE.—Assistant School Medical Officer. Salary £300 per annum.

OLDHAM ROYAL INFIRMARY.—Third House Surgeon for six months. Salary at rate of £80 per annum, with residence, board, and laundry.

PRESTON, COUNTY ASYLUM, Whittingham.—Assistant Medical Officer, unmarried. Salary £250 per annum, with board, apartments, and washing.

PRINCE OF WALES'S GENERAL HOSPITAL, Tottenham, N.—Senior House Physician. Salary £75 per annum, with residence, board, and laundry.

REIGATE, BOROUGH OF.—Medical Attendant at the Isolation Hospital and Police Surgeon. Salary £200 per annum.

ROCHDALE INFIRMARY.—Senior House Surgeon, unmarried. Salary £110 per annum, with board, residence, and laundry.

ROYAL ARMY MEDICAL CORPS.—Examination for not less than Twelve Commissions.

ROYAL AUSTRALIAN NAVY.—Two Surgeons. Rates of pay on entry £387 16s. 3d. per annum.

ROYAL EAR HOSPITAL, Soho.—Honorary Assistant Administrator of Anæsthetics.

ROYAL FREE HOSPITAL, Gray's Inn-road, W.C.—Senior Resident Medical Officer. Salary £100 per annum, with board, residence, and washing.

ROYAL HOSPITAL FOR DISEASES OF THE CHEST, City-road, E.C.—Honorary Anæsthetist.

ROYAL NAVAL MEDICAL SERVICE.—Twenty-five Appointments.

ST. GILES INFIRMARY, Brunswick-square, Camberwell, and GORDON-ROAD WORKHOUSE, Peckham.—Second Assistant Medical Officer. Salary £170 per annum, with apartments, board, and washing.

ST. MARK'S HOSPITAL FOR CANCER, FISTULA, AND OTHER DISEASES OF THE RECTUM, City-road, E.C.—Half-time Pathologist and Bacteriologist. Salary £80.

ST. MARY'S HOSPITAL FOR WOMEN AND CHILDREN, Plaistow, E.—Junior Resident Medical Officer. Salary at rate of £70 per annum, with board, residence, and laundry.

SALFORD ROYAL HOSPITAL.—Junior House Surgeon and Casualty House Surgeon for six months. Salary at rate of £65 per annum each, with board and residence.

SALISBURY INFIRMARY.—Assistant House Surgeon, unmarried. Salary £50 per annum, with apartments, board, lodging, and washing.

SCARBOROUGH HOSPITAL AND DISPENSARY.—Junior House Surgeon. Salary £80 per annum, with board, residence, &c.

SHEFFIELD ROYAL INFIRMARY.—House Surgeon, unmarried. Salary £80 per annum, with board and residence.

SHEFFIELD UNION HOSPITAL, Firvale.—Resident Assistant Medical Officer, unmarried. Salary £120 per annum, with apartments, rations, &c.

SOUTHAMPTON, ROYAL SOUTH HANTS AND SOUTHAMPTON HOSPITAL.—House Surgeon for six months. Salary at rate of £100 per annum, with rooms, board, and washing.

SOUTHWARK UNION INFIRMARY, East Dulwich-grove, S.E.—Second Assistant Medical Officer and Third Assistant Medical Officer. Salary at rate of £120 per annum each, with board, lodging, and washing.

STOCKPORT INFIRMARY.—Junior House Surgeon. Salary £100 per annum, with board, washing, and residence.

SUNDERLAND ROYAL INFIRMARY.—House Physician. Salary £120 per annum, with board, residence, and laundry.

SURREY DISPENSARY, Southwark, S.E.—Resident Medical Officer. Salary £140 per annum, with apartments, attendance, &c.

UNIVERSITY COLLEGE HOSPITAL, Gower-street, London, W.C.—Assistant Surgeon.

VENTNOR, ROYAL NATIONAL HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST ON THE SEPARATE PRINCIPLE.—Assistant Resident Medical Officer, unmarried. Salary £100 per annum, with board, lodging, &c.

WARRINGTON, LANCASHIRE COUNTY ASYLUM, Winwick.—Pathologist and Assistant Medical Officer, unmarried. Salary £250 per annum, with board, apartments, attendance, and washing.

WEST AFRICAN MEDICAL STAFF.—A number of Appointments. Salary £400 per annum.

WESTERN DISPENSARY, 38, Rochester-row, Westminster.—Resident Medical Officer. Salary £75 per annum, with apartments, attendance, &c.

WEST END HOSPITAL FOR DISEASES OF THE NERVOUS SYSTEM, PARALYSIS, AND EPILEPSY, 73, Welbeck-street, W.—Clinical Assistants.

WEST HAM AND EASTERN GENERAL HOSPITAL, Stratford.—Junior House Physician. Salary at rate of £75 per annum, with board, residence, and washing.

WEST LONDON HOSPITAL, Hammersmith-road, W.—Two House Physicians, Three House Surgeons, and Resident Casualty Officer for six months. Board, lodging, and laundry allowance provided.

WESTMINSTER GENERAL DISPENSARY, 9, Gerrard-street, Soho, W.—Resident Medical Officer. Salary £120 per annum, with rooms, attendance, &c.

WHITECHAPEL UNION INFIRMARY, Vallance-road, E.—Second Assistant Resident Medical Officer. Salary £120 per annum, with rations, apartments, and washing.

WIGAN, ROYAL ALBERT EDWARD INFIRMARY AND DISPENSARY.—Junior House Surgeon. Salary £100 per annum, with board, apartments, and washing.

WOLVERHAMPTON AND MIDLAND COUNTIES EYE INFIRMARY.—House Surgeon. Salary £90 per annum, with apartments, board, and laundry.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL.—Resident Medical Officer. Also House Surgeon. Salary in each case £125 per annum, with board, rooms, and laundry.

WOOLWICH INFIRMARY, Plumstead.—Assistant Resident Medical Officer, unmarried. Salary £180 per annum, with apartments, rations, and washing.

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THE Chief Inspector of Factories, Home Office, London, S.W., gives notice of a vacancy as Certifying Surgeon under the Factory and Workshop Acts at Shoreham, in the county of Sussex.

# Births, Marriages, and Deaths.

## BIRTHS.

FENWICK.—On March 2nd, at Forres-gardens, Golder's Green, N.W., the wife of W. Stephen Fenwick, M.S., F.R.C.S., of a son.

GUTHRIE.—On Feb. 27th, at Woodland-road, Rock Ferry, Cheshire, the wife of Thomas Mansfield Guthrie, M.B., of a daughter.

STRICKLAND.—On Feb. 28th, 1914, at The Limes, Southend-road, Beckenham, Kent, the wife of Harold F. Strickland, F.R.C.S., of a son.

TURNER.—On March 2nd, at Harley-street, W., the wife of William Aldren Turner, M.D., of a son.

WILLIAMSON.—On Feb. 25th, at Camp-terrace, North Shields, to Dr. and Mrs. J. Burrell Williamson, a son.

## MARRIAGES.

HOSFORD—COLEMAN.—On Feb. 28th, at St. John's, Hove, J. Stroud Hosford, F.R.C.S. Edin., to May, daughter of the late Mr. W. Coleman, of Runhall, Norfolk, and niece of the late Mr. Alfred Coleman, of Paris. Colonial papers, please copy.

MACKINNON—WILLIAMS.—On Feb. 25th, at Marylebone Parish Church Daniel Mackinnon, M.B., Ch.B., D.P.H., to Jessie, widow of the late Arthur Williams.

RIX—WAGSTAFF.—On Feb. 23rd, at the Parish Church, Berkhamsted Herts, Rowland Waters Rix, F.R.C.S., to Marjorie Edith, younger daughter of Philip Wagstaff, of Berkhamsted.

## DEATHS.

STEWART.—On Feb. 27th, Donald Stewart, M.D., of The Prebendal, Aylesbury, native of Nottingham, in his 72nd year.

WILLIAMS.—On Feb. 25th, at Brunswick-place, Southampton, Edward Hanbury Williams, Fleet Surgeon, R.N. (retired), aged 60.

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*N.B.—A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.*

# Notes, Short Comments, and Answers to Correspondents.

## THE MILWARD FUND.

Mr. William Courtenay Milward, B.A. Oxon., M.R.C.S., L.R.C.P., of Cardiff, died on April 9th, 1913, leaving a widow and three boys, aged 15, 9, and 2. His estate produced £200, to which is to be added £163 collected from the local profession as a testimonial to Mr. Milward shortly before his death. This fund, for the benefit of the widow and children, was opened on April 15th, 1913, and closed on Jan. 31st, 1914. The total amount collected from medical men and a few non-medical friends with bank interest is £1348 11s. 1d. The expenses of collection were £20 5s. 2d., leaving £1328 5s. 11d. Besides this sum promises of further annual subscriptions to the fund will bring in the following amounts, viz.:—

| | | |
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| In 1914 | ... ... ... ... ... | £56 5s. |
| ,, 1915 | ... ... ... ... ... | £56 5s. |
| ,, 1916 | ... ... ... ... ... | £51 5s. |
| ,, 1917 | ... ... ... ... ... | £44 19s. |
| ,, 1918 | ... ... ... ... ... | £36 12s. |

We hope to publish the statement of the committee of the fund in an early issue of THE LANCET.

## MARTIAL AND MEDICINE.

*To the Editor of* THE LANCET.

SIR,—Owing to absence in Spain I have only to-day seen Mr. Eade's letter of Feb. 18th on this subject in your issue of Feb. 21st. I was familiar with the epigram, "Lotus nobiscum est," &c., but I refrained from translating it, as I felt I could not cut myself free from a spirited rendering which I had read in some old Dublin magazine, and which I fancy I recollect correctly as follows:—

> Last night Andragoras was well and hearty,
> The merriest guest of all our dinner party:
> And dead this morning: what was the attack?
> He dreamt he saw Hermocrates the quack.

In the absence of any books of reference, I speak hesitatingly as to Mr. Platt's suggestion that Martial was indebted to Lucilius for his jibe. The two men were contemporary, and though Martial published his poems mainly towards the end of the first century A.D., I cannot be sure which wrote before or after the other.

A few days since I passed through the place of Martial's birth, the ancient Bilbilis. The whole district is a congeries of wild craggy mountain sides. The low houses, mostly of one storey and built of the local stone, seemed welded into the brown rock on and in which they are built. So alike in colour are houses and rocks that a whole town, right before your eyes, only slowly emerges out of the dreary dun background. One cannot wonder that Martial sighed for the flesh-pots of Imperial Rome.

I am, Sir, yours faithfully,

Nimes, March 2nd, 1914. RAYMOND CRAWFURD, M.D.Oxon.

## GRENADA MEDICAL REPORT.

THE Blue Book report of Grenada for the year 1912, which the Governor explains has been delayed by various causes, estimates the population of the colony at 68,485. The birth-rate per 1000 was 38·19 and the death-rate 22·9. The year was not a healthy one, the death roll reaching 1575, which is a large number for Grenada. Diarrhœa, dysentery, and gastro-enteritis were the principal causes of death, and there were no less than 76 deaths from phthisis recorded. The rainfall at Richmond Hill station, 63·98 inches, was the smallest recorded since 1900, when it was 63·45 inches. The average rainfall at this station for the last 22 years has been 76·98 inches. A case of bubonic plague was introduced from Trinidad, but fortunately the subject was under suspicion from the moment he arrived and was removed from the ship to the isolation hospital, where he died. A most important change affecting the health of the lower classes came into operation during the year, the fees of medical officers for attending "labourers" being considerably reduced and the cost of "labourers'" medicine altered from 1s. to 6d. per prescription. It has thus become possible for a labourer in Grenada to go to the residence or station of a district medical officer and obtain medical advice and medicine for 1s. 6d., while the fees for visits to patients' houses have been correspondingly reduced.

In the colony hospital 1376 patients were treated during the year, including 370 suffering from ankylostomiasis. This hospital has been much improved and its work expanded. An English nurse matron, Miss J. S. Gardner, has been appointed, and accommodation provided for

36 more patients. A maternity and lying-in ward has been constructed and the administration buildings extended. In the Yaws Hospital the number of cases treated and discharged as cured was 379, and there was no death. The treatment of the disease by salvarsan was carried out with much success, and there is now good reason to hope that the disease in time may be eliminated from the colony. In St. Andrew's Hospital 199 patients were treated, of whom 173 were discharged as cured, 20 as relieved, and 6 died. The number of prescriptions compounded at the dispensary, which deals with the whole parish, was 10,320, of which 7205 were free of charge. In the Carriacou Hospital the number of patients treated was only 186, of whom 129 were cured, 22 relieved, and 7 died. A much-needed hospital for consumptives has been opened, providing accommodation and treatment on modern lines for 24 cases.

## THE "ART AND MYSTERY" OF MEDICINE.

*To the Editor of* THE LANCET.

SIR,—From time to time I read paragraphs in the daily press referring to the "art and mystery" of medicine, and have observed during the last few days that another writer refers to the fact that medicine is no longer a "mystery." I suggest that all the stress laid upon this fact is based on a misconception of etymology. Mystery meaning a secret doctrine has quite a different etymology to mystery, a trade, profession, or handicraft. The latter is seen in the old French *mestier*, which is derived from *ministerium*, so that medicine is still a "mystery" in this sense—that is, a ministration. Therefore the "art and mystery" of medicine is almost equivalent to the "theory and practice of medicine," and any arguments based on a false etymology fall to the ground. I am, Sir, yours faithfully,

London, March 3rd, 1914. BLANCUS.

## A BY-LAW CONCERNING HATPINS AT CARDIFF.

IT is probable that the Cardiff corporation is the first public body in the United Kingdom to decide to take steps to lessen the danger from the pointed ends of hatpins protruding from the hat of a lady. On the proposition of a medical member of the corporation a by-law has been passed to the effect that—

> A female person wearing a hatpin in any street or public place, church, chapel, or other place of public worship, public hall, public waiting-room, place of public entertainment, or public carriage shall cause the point to be properly protected by a blunt guard of metallic or other material.

## AN ELASTIC TRUSS.

Mr. John Dee Shapland, of Exmouth, has sent us a new form of truss which he has found very useful in practice. It is almost impossible for anyone to devise a truss on an entirely new principle, but success depends more upon the details than on the mere idea. In the truss before us there are no metal springs of any form. The pad consists of a rubber exterior filled with air, so that the pressure brought to bear on the inguinal canal is elastic in place of being rigid as in many forms of truss. The pad is kept in position by means of an elastic band passing round the pelvis, and another passing in the usual manner round the gluteal fold. From our examination of the truss we may say that it appears to be well calculated to be of great value in many cases of inguinal hernia. Surgeons know that in one case one form of truss suits a patient well, while in another case a different form is needed; there is no truss which will fit all forms of inguinal hernia, but this truss is well designed and deserves to be tried in any case in which the ordinary forms have failed to retain the hernia.

## INSURANCE AGAINST TWINS.

A popular weekly paper has just announced that it will insure its readers against twins, many thousands of whom are born each year in the United Kingdom. The editor proposes to give £5 to every mother of twins born in the United Kingdom, the Channel Islands, and the Isle of Man during the month of July next, on condition that readers who claim the bounty shall retain the 12 coupons to be issued with the paper during the 12 previous weeks. The application for the £5 must be sent in within five weeks of the birth, accompanied by the 12 coupons and the certificate of a medical man or certified midwife stating that both children have lived for four weeks. The decision of the editor is final. What will the editor say if he receives a letter five weeks after the birth of the first child to say that a second child has been born to the mother? Such a case actually did happen last year at Barrow, near Clitheroe, when the father made application for maternity benefit in respect of the second child. The Commissioners decided that it was a separate birth, thus entitling parents to the double benefit (*vide* THE LANCET, June 7th, 1913, p. 1627), but it might be argued that two separate births could not constitute twins. As to the number of £5 notes which will be claimed, Dubois found that in 484,350 accouchements in Germany, England, and France there were 6248 cases of twins, 78 of triplets, and 4 of four at a birth, or putting it in another form there was one case of twins in 78 deliveries, one case of triplets in every 6209 deliveries, and one case of four at a birth in 121,082 deliveries. Veit, basing his statement on an immense number of deliveries, found the proportion of one twin delivery to 89 single births. In France twins are delivered in the proportion of 1 to 92 single births, in Germany 1 to 84 cases, and in Great Britain 1 to 63 cases of single births.

## HOW DISEASE IS SPREAD.

AT the last meeting of the Totnes (Devon) rural district council the medical officer of health (Mr. S. C. Jellicoe) reported two cases of diphtheria in the village of South Brent. He stated that in each case printed and verbal instructions were given as to the precautions required to be taken, but in the case that terminated fatally these were absolutely unheeded, and nearly 20 school children were allowed to enter the house and touch the dead child's body.

## THE "TANTLUS" BOTTLE LOCK CORK.

WE have received from Mr. H. Yeild Collis, of 4, Market-street, Stourbridge, a specimen of a cork which he has invented for locking up bottles containing potable spirits. Its working principle is quite simple, and it has occurred to the inventor that his idea might be applied with advantage to poison bottles. We quite agree. In the top of the cork is fitted a bolt with a firm metal disc at its end. The bolt can only be released by a key. When it is released it resembles a buffer of a railway carriage. When it is pressed down again on the corks it automatically locks, and neither corkscrew, lever, nor fingers can extract the cork, which is well sunk into the neck of the bottle. The act of pressing the key into the lock really means that a kind of corkscrew springs up in Jack-in-the-box fashion, which enables the cork to be withdrawn. The design is most ingenious and effective, while we are told that the cost of the lock cork is very moderate. The fact that a key is required to release a cork draws attention at once to the serious nature of the contents of a poison bottle.

*Mr. H. Haes.*—There is nothing in our correspondent's suggestion.

COMMUNICATIONS not noticed in our present issue will receive attention in our next.

## METEOROLOGICAL READINGS.

*(Taken daily at 8.30 a.m. by Steward's Instruments.)*

THE LANCET Office, March 4th, 1914.

| Date. | Barometer reduced to Sea Level and 32° F. | Direction of Wind. | Rainfall. | Solar Radio in Vacuo. | Maximum Temp. Shade. | Min. Temp. | Wet Bulb. | Dry Bulb. | Remarks. |
|---|---|---|---|---|---|---|---|---|---|
| Feb. 26 | 29·90 | S.W. | ... | 59 | 49 | 37 | 39 | 40 | Overcast |
| ,, 27 | 30·15 | S.W. | ... | 78 | 53 | 38 | 39 | 40 | Foggy |
| ,, 28 | 30·20 | S.W. | ... | 80 | 55 | 40 | 41 | 42 | Fine |
| Mar. 1 | 30·04 | W. | 0·03 | 96 | 56 | 42 | 43 | 45 | Fine |
| ,, 2 | 30·03 | W. | 0·04 | 79 | 47 | 36 | 36 | 37 | Fine |
| ,, 3 | 29·98 | S.W. | ... | 63 | 50 | 37 | 40 | 41 | Overcast |
| ,, 4 | 29·73 | W. | 0·09 | 64 | 54 | 41 | 48 | 49 | Overcast |

## A DIARY OF CONGRESSES.

**THE following Congresses, Conferences, and Exhibitions are announced. In 1914:—**

**April** 13th and 14th (Berlin).—Thirteenth Congress of the German Orthopædic Society.

,, 13th–16th (New York).—Fourth Congress of the International Surgical Society. (President: Prof. Depage, Bruxelles.)

,, 15th–18th (Berlin).—Forty-third Congress of the German Surgical Society.

,, 19th–21st (Berlin).—"Jubilee" Congress of the German Röntgen Society.

,, 20th–23rd (Wiesbaden).—Thirty-first German Congress for Internal Medicine.

,, 27th–May 1st (London, Royal Horticultural Hall).—Nursing Conference and Exhibition.

**May** 1st–Nov. 1st (Lyons).—International Town Hygiene Exhibition.

May–October (London, Shepherd's Bush).—Anglo-American Exposition.

**June** 18th–24th (London, Church House, Westminster).—International Conference on the Blind.

**July** 6th–11th (Blackpool).—Twenty-ninth Congress of the Royal Sanitary Institute.

,, 8th–10th (Oxford).—Ophthalmological Congress.

July 8th–13th (Edinburgh).—Congress of the Royal Institute of Public Health.
,, 21st–23rd (Chester).—British Pharmaceutical Conference.
,, 27th–31st (London).—Fifth Annual Session of the Clinical Congress of Surgeons of North America.
,, 28th–31st (Aberdeen).—Eighty-second Annual Meeting of the British Medical Association.
Aug. 3rd–8th (London).—Sixth International Dental Congress.
,, 10th–15th (St. Petersburg).—Twelfth International Congress of Ophthalmology.
Sept. 7th–12th (Berne).—International Congress for Neurology, Psychiatry, and Psychology.
,, 30th–Oct. 3rd (Brussels).—Fourteenth French Congress of Medicine.
September (Vienna).—Third International Congress for Diseases of Occupation.
Nov. 15th–21st (London).—Health Week. (Under the direction of the Health Week Committee appointed by the Royal Sanitary Institute.)
(St. Petersburg).—Third Mendeléeff Congress of Pure and Applied Chemistry and Physics.
In 1915:—
May 31st–June 5th (London, South Kensington).—Sixth International Congress of Social Work and Service.
Sept. 8th (begins) (Manchester).—Meeting of the British Association.

# Medical Diary for the ensuing Week.

## SOCIETIES.

**ROYAL SOCIETY,** Burlington House, London, W.

THURSDAY.—Sir James Stirling: Note on a Functional Equation employed by Sir George Stokes.—Prof. J. C. McLennan and Mr. A. R. McLeod: On the Mercury Green Line $\lambda = 5461$ as Resolved by Glass and Quartz Lummer Plates and on its Zeeman Components (communicated by Sir J. Larmor).—Mr. H. Hartley: The Electrical Condition of a Gold Surface during the Absorption of Gases and their Catalytic Combustion (communicated by Prof. W. A. Bone).—Mr. J. H. Mackie: The Diffusion of Electrons through a Slit (communicated by Prof. J. S. Townsend).—Dr. A. Holt: The Rate of Solution of Hydrogen by Palladium (communicated by Mr. G. T. Beilby).

**ROYAL SOCIETY OF MEDICINE,** 1, Wimpole-street, W.

TUESDAY.
SECTION OF SURGERY (Hon. Secretaries—J. Murray, Raymond Johnson): at 5.30 P.M.
*Paper:*
Mr. Herbert J. Paterson: Gastro-jejunostomy: the Principles which should Determine its Application and the Indications for its Use.
SECTION OF PSYCHIATRY (Hon. Secretaries—R. H. Cole, Bernard Hart): at 8.30 P.M.
(Joint Meeting with British Psychological Society.)
Mr. W. McDougall, F.R.S.: The Definition of the Sexual Instinct.
Dr. H. Devine: The Biological Significance of Delusions.

FRIDAY.
CLINICAL SECTION (Hon. Secretaries—W. Essex Wynter, T. H. Kellock): at 8.30 P.M.
*Cases:*
Mr. Henry Curtis: Case of Primary Squamous Epithelioma of the Exterior of the Left Nostril Illustrating the Radical Modern Operation.
And other Cases.
*Short Paper:*
Mr. V. Zachary Cope: Traumatic Sensory Aphasia.

**MEDICAL SOCIETY OF LONDON,** 11, Chandos-street, Cavendish-square, W.

MONDAY.—8.30 P.M., Discussion on Radium Therapy, introduced by Mr. H. Pinch. Followed by Sir Frederick Treves, Bart., G.C.V.O., Sir A. Pearce Gould, K.C.V.O., Mr. A. C. Morson, Dr. H. Williamson, Mr. T. H. Kellock, Mr. D. Harmer, Dr. Finzi, Dr. D. Turner, and Dr. L. Jones.

**CHELSEA CLINICAL SOCIETY,** Club Rooms of the Medical School, St. George's Hospital, S.W.

TUESDAY.—8.30 P.M., Annual Clinical Debate on Arteriosclerosis. Paper:—Prof. L. Hill: New Facts concerning the Measurement of Blood Pressure in Man. Followed by a discussion in which Dr. McQueen, Dr. M. Flack, Dr. R. Wells, Dr. Hamill, and others will take part.

**HUNTERIAN SOCIETY,** Library, St. Bartholomew's Hospital, E.C.

WEDNESDAY.—9 P.M., Papers:—Dr. W. H. Kelson: Nasal Suppuration, more Particularly as Associated with Diseases of the Eye.—Dr. R. D. Maxwell: Specimens of Two Fœtal Heads—(1) Hydrocephalic, (2) Defective Ossification—with Remarks on their Obstetric Significance.—Mr. A. S. B. Bankart: Colles's Fracture and its Treatment.

**SOUTH-WEST LONDON MEDICAL SOCIETY,** Bolingbroke Hospital, Wandsworth Common, S.W.

WEDNESDAY—9 P.M, Dr. C. O. Hawthorne: The Clinical Value of the Instrumental Estimation of Blood Pressure.

**UNITED SERVICES MEDICAL SOCIETY,** Royal Army Medical College, Grosvenor-road, S.W.

THURSDAY.—5 P.M., Major E. T. F. Birrell, R.A.M.C.: Some Experiences of the Balkan War.

**HARVEIAN SOCIETY OF LONDON,** Stafford Rooms, Titchborne-street, Edgware-road, W.

THURSDAY.—8.30 P.M., Harveian Lecture:—Mr. D'Arcy Power: English Medicine and Surgery under Edward III. (Illustrated by lantern slides).

**NORTH LONDON MEDICAL AND CHIRURGICAL SOCIETY,** Board Room of the Great Northern Central Hospital, Holloway-road, N.

THURSDAY.—9 P.M., Paper:—Dr. L. Barlow: Radium and Radiation as a Therapeutic Agent.

**WIMBLEDON AND DISTRICT MEDICAL SOCIETY,** Johnston's Rooms, 6, Broadway, Wimbledon, S.W.

FRIDAY.—9 P.M., Address:—Mr. J. S. Joly: The Diagnosis and Treatment of Enlargements of the Prostate.

## LECTURES, ADDRESSES, DEMONSTRATIONS, &c.

**ROYAL COLLEGE OF PHYSICIANS OF LONDON,** Pall Mall East.

TUESDAY AND THURSDAY.—5 P.M., Goulstonian Lectures:—Dr. M. A. Cassidy: Rheumatoid Arthritis. (Lectures I. and II.)

**ROYAL COLLEGE OF SURGEONS OF ENGLAND,** Lincoln's Inn Fields, W.C.

MONDAY.—5 P.M., Hunterian Lecture:—Prof. C. M. Moullin: Observations on the Biology and Classification of Tumours.

**MEDICAL GRADUATES' COLLEGE AND POLYCLINIC,** 22, Chenies-street, W.C.

MONDAY.—4 P.M., Dr. W. Fox: Clinique (Skin). 5.15 P.M., Lecture:—Sir George Savage: Syphilis and Insanity.
TUESDAY.—4 P.M., Dr. H. Campbell: Clinique (Medical). 5.15 P.M., Lecture:—Dr. W. H. Stoddart: The Modern Treatment of General Paralysis.
WEDNESDAY.—4 P.M., Mr. W. Turner: Clinique (Surgical). 5.15 P.M., Lecture:—Dr. A. E. Giles: The Evolution of Hysterectomy.
THURSDAY.—4 P.M., Mr. C. W. Rowntree: Clinique (Surgical). 5.15 P.M., Lecture:—Dr. F. J. McCann: The Treatment of Infection of the Female Genitalia.
FRIDAY.—4 P.M., Mr. R. E. Bickerton: Clinique (Eye).

**POST-GRADUATE COLLEGE,** West London Hospital, Hammersmith-road, W.

MONDAY.—10 A.M., Dr. Simson: Diseases of Women. 10.30 A.M., Dr. Owen: Demonstration of Cases in Wards. 12 noon, Dr. Bernstein: Pathological Demonstration. 2 P.M., Medical and Surgical Clinics. X Rays. Mr. Armour: Operations. Dr. Pritchard: Bacterial Therapy Department. 2.30 P.M., Mr. Dunn: Diseases of the Eye. 5 P.M., Lecture:—Dr. Saunders: Gastro-intestinal Disorders of Infancy and Childhood.
TUESDAY.—10 A.M., Dr. Robinson: Gynæcological Operations. 10.30 A.M., Surgical Registrar: Demonstration of Cases in Wards. 12 noon, Mr. T. Gray: Demonstration of Fractures, &c. 2 P.M., Medical and Surgical Clinics. X Rays. Mr. Baldwin: Operations. Dr. Davis: Diseases of the Throat, Nose, and Ear. Dr. Pernet: Diseases of the Skin. 5 P.M., Lecture:—Dr. Saunders: Gastro-intestinal Disorders of Infancy and Childhood.
WEDNESDAY.—10 A.M., Dr. Saunders: Diseases of Children. Dr. Davis: Operations of the Throat, Nose, and Ear. 11 A.M., Mr. Souttar: Demonstration of Minor Operations. 12 noon, Lecture:—Mr. Souttar: Abdominal Diagnosis. 2 P.M., Medical and Surgical Clinics. X Rays. Mr. Pardoe: Operations. Mr. B. Harman: Diseases of the Eye. Dr. Simson: Diseases of Women. 5 P.M., Lecture:—Dr. Saunders: Gastro-intestinal Disorders of Infancy and Childhood.
THURSDAY.—9 A.M., Dr Bernstein: Bacterial Therapy Department. 10.30 A.M., Dr. Simson: Gynæcological Demonstration. 12 noon, Lecture:—Dr. G. Stewart: Neurological Cases. 2 P.M., Medical and Surgical Clinics. X Rays. Mr. Armour: Operations. 2.30 P.M., Mr. Dunn: Diseases of the Eye. 5 P.M., Lecture:—Dr. Saunders: Gastro-intestinal Disorders of Infancy and Childhood.
FRIDAY.—10 A.M., Dr. Robinson: Gynæcological Operations. 12.15 P.M., Lecture:—Dr. Bernstein: Clinical Pathology. 2 P.M., Medical and Surgical Clinics. X Rays. Mr. Baldwin: Operations. Dr. Davis: Diseases of the Throat, Nose, and Ear. Dr. Pernet: Diseases of the Skin. 5 P.M., Lecture:—Dr. Saunders: Gastro-intestinal Disorders of Infancy and Childhood.
SATURDAY.—10 A.M., Dr. Saunders: Diseases of Children. Dr. Davis: Operations of the Throat, Nose, and Ear. Mr. B. Harman: Diseases of the Eye. 12 noon, Lecture:—Mr. Souttar: Surgical Anatomy of the Abdomen. 2 P.M., Medical and Surgical Clinics. X Rays. Mr. Pardoe: Operations.

**NORTH-EAST LONDON POST-GRADUATE COLLEGE,** Prince of Wales's General Hospital, Tottenham, N.

MONDAY.—Clinics:—10.30 A.M., Surgical Out-patient (Mr. E. Gillespie). 2.30 P.M., Medical Out-patient (Dr. T. R. Whipham); Nose, Throat, and Ear (Mr. H. D. Gillies). 3 P.M., Medical In-patients (Dr. R. M. Leslie).
TUESDAY.—2.30 P.M., Operations. Clinics:—Medical Out-patient (Dr. A. G. Auld); Surgical (Mr. Howell Evans); Gynæcological (Dr. A. E. Giles). X Rays and Electrical Methods. 3 P.M., Special Demonstration of Selected Medical Cases (Dr. R. M. Leslie). Medical In-patient (Dr. Whiting). 4.15 P.M., Lantern-Demonstration:—Mr. Howell Evans: Strictures and Kinks of the Small Intestine.
WEDNESDAY.—Clinics:—2 P.M., Throat Operations (Mr. Gillies). 2.30 P.M., Children's Out-patient (Dr. T. R. Whipham); Skin (Dr. G. N. Meachen); Eye (Mr. R. P. Brooks).
THURSDAY.—2.30 P.M., Gynæcological Operations (Dr. A. E. Giles). Clinics:—Medical Out-patient (Dr. A. J. Whiting); Surgical (Mr. Carson); X Rays and Electrical Methods (Dr. Metcalfe).
FRIDAY.—2.30 P.M., Operations. Clinics:—Medical Out-patient (Dr. A. G. Auld); Surgical (Mr. E. Gillespie); Eye (Mr. R. P. Brooks). 3 P.M., Medical In-patient (Dr. G. P. Chappel).

**LONDON HOSPITAL MEDICAL COLLEGE** (UNIVERSITY OF LONDON), Clinical Theatre, London Hospital, Mile End-road, E.

Course of Lectures on Syphilology:—

TUESDAY.—4.15 P.M., Dr. O. Grünbaum: The Viscera.

WEDNESDAY AND FRIDAY.—4.15 P.M., Mr. A. B. Roxburgh and Mr. W. T. Lister: The Eye.

Lectures in Advanced Medical Subjects:—

WEDNESDAY.—4.30 P.M., Dr. H. L. Tidy: The Pathological Excretion of Nitrogen by the Skin and the Resulting Changes in the Urine.

**HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST,** Brompton, S.W.

WEDNESDAY.—4.30 P.M., Lecture:—Dr. S. Melville: The Technique of the X Ray Examination of the Lungs.

**ROYAL HOSPITAL FOR DISEASES OF THE CHEST,** Medical School, City-road, E.C.

FRIDAY.—5 P.M., Lecture-Demonstration:—Dr. Stott: The Use of Graphic Records in Heart Disease.

**THE THROAT HOSPITAL,** Golden-square, W.

MONDAY.—5.15 P.M., Special Demonstration of Selected Cases.

THURSDAY.—5.15 P.M., Clinical Lecture.

**NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC,** Queen-square, Bloomsbury, W.C.

TUESDAY AND FRIDAY.—3.30 P.M., Lectures:—Dr. H. Tooth: Clinical Cases.

**QUEEN'S HOSPITAL FOR CHILDREN,** Board Room of the Hospital, Hackney-road, N.E.

TUESDAY.—4 P.M., Lecture:—Dr. R. A. Chisolm: Anæmia in Childhood.

**CANCER HOSPITAL,** Museum of the Hospital, Brompton, S.W.

Post-Graduate Lectures on the Diagnosis and Treatment of Cancer:—

WEDNESDAY.—5 P.M., Mr. C. Rowntree: Cancer of the Breast.

**ST. JOHN'S HOSPITAL FOR DISEASES OF THE SKIN,** 49, Leicester-square, W.C.

TUESDAY.—2 P.M., Dr. W. Griffith: Diseases of the Hair.

THURSDAY.—6 P.M., Dr. M. Dockrell: Treatment by Cataphoresis and Electro-inunction.

**ROYAL INSTITUTE OF PUBLIC HEALTH,** Lecture Room of the Institute, 37, Russell-square, W.C.

Course of Instruction for Tuberculosis Officers, School Medical Officers, Medical Practitioners, &c.:—

FRIDAY.—5 P.M., The Diagnosis and Treatment of Tuberculosis, &c.—Lecture IX.:—Dr. D. J. Williamson: Treatment—Tuberculosis Dispensaries.

**ROYAL SANITARY INSTITUTE,** 90, Buckingham Palace-road, S.W.

TUESDAY.—7.30 P.M., Discussion on Social Conditions in Relation to Public Health. To be opened by papers—Dr. Hilda Clark: The Prevention of Tuberculosis from the Social Side; Dr. F. E. Fremantle: The Social Aspect of the Housing Question.

**MANCHESTER HOSPITALS POST-GRADUATE CLINICS.**

TUESDAY.—SALFORD ROYAL HOSPITAL—4.30 P.M., Mr. G. Wright: Demonstration of Surgical Cases in the Wards.

WEDNESDAY.—ROYAL INFIRMARY—4.30 P.M., Dr. W. E. Fothergill: A New Modification of Colporrhaphy.

THURSDAY.—ANCOATS HOSPITAL—4.30 P.M., Dr. Leech: Enemata.

FRIDAY.—ROYAL EYE HOSPITAL—4.30 P.M., Dr. Hill Griffith: Congenital Abnormalities.

**ROTUNDA HOSPITAL POST-GRADUATE COURSES, Dublin.**

MONDAY.—10 A.M., Obstetrical Lecture: The Treatment of the Common Forms of Contracted Pelvis (continued). 11 A.M., Examination of Patients and Minor Operations.

TUESDAY.—10 A.M., Major Operations.

WEDNESDAY.—10 A.M., Obstetrical Lecture: The Induction of Labour. 11 A.M., Examination of Patients and Minor Operations.

THURSDAY.—10 A.M., Major Operations.

FRIDAY.—10 A.M., Gynæcological Lecture: The Use of Pessaries in Uterine Displacements. 11 A.M., Examination of Patients and Minor Operations.

*For further particulars of the above Lectures, &c., see Advertisement Pages.*

## EDITORIAL NOTICES.

IT is most important that communications relating to the Editorial business of THE LANCET should be addressed *exclusively* "TO THE EDITOR," and not in any case to any gentleman who may be supposed to be connected with the Editorial staff. It is urgently necessary that attention should be given to this notice.

*It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this office.*

*Lectures, original articles, and reports should be written on one side of the paper only,* AND WHEN ACCOMPANIED BY BLOCKS IT IS REQUESTED THAT THE NAME OF THE AUTHOR, AND IF POSSIBLE OF THE ARTICLE, SHOULD BE WRITTEN ON THE BLOCKS TO FACILITATE IDENTIFICATION.

*Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers—not necessarily for publication.*

*We cannot prescribe or recommend practitioners.*

*Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."*

*Letters relating to the publication, sale, and advertising departments of* THE LANCET *should be addressed "To the Manager."*

*We cannot undertake to return MSS. not used.*

## MANAGER'S NOTICES.

### THE INDEX TO THE LANCET.

THE Index and Title-page to Vol. II. of 1913 were given in THE LANCET of Dec. 27th, 1913.

### VOLUMES AND CASES.

VOLUMES for the second half of the year 1913 are now ready. Bound in cloth, gilt lettered, price 16*s.*, carriage extra.

Cases for binding the half-year's numbers are also ready. Cloth, gilt lettered, price 2*s.*, by post 2*s.* 3*d.*

To be obtained on application to the Manager, accompanied by remittance.

### TO SUBSCRIBERS.

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